CHAPTER 11 Transportation

11.1 Introduction

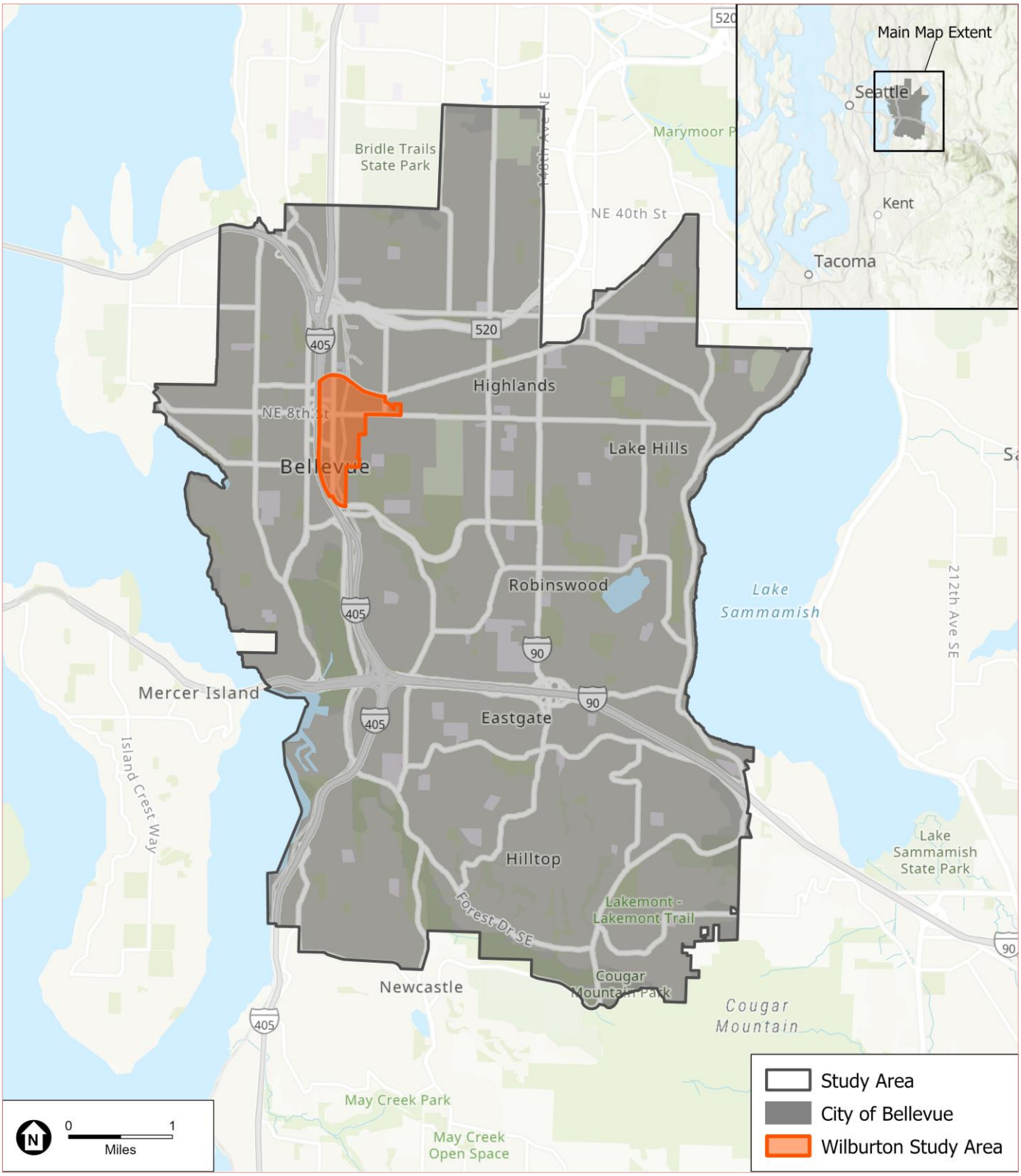
This chapter presents a multimodal transportation analysis to evaluate the potential impacts from implementing the various growth alternatives under consideration. The section documents existing transportation conditions in Bellevue, as well as future transportation conditions under four alternatives. The alternatives include the No Action Alternative where land use designations remain the same, and three Action Alternatives in coordination with potential land use designation changes. Bellevue's approach to mitigating potentially significant impacts on the transportation system is presented in the Avoidance, Minimization, and Mitigation Measures section, followed by a discussion of significant unavoidable adverse impacts.

Mixed Use Centers

Bellevue's Mixed Use Centers include the urban core of Downtown, BelRed, Wilburton, and East Main, as well as Factoria, Eastgate, and Crossroads.

11.1.1 Transportation Study Area

The transportation study area covers all areas within the City of Bellevue. Information is provided on a citywide basis and includes a focus on the Wilburton study area as shown in **Figure 11-1**.



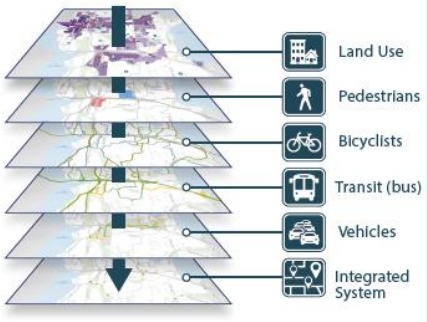
SOURCE: ESA 2023

FIGURE 11-1 **Bellevue Study Area**

11.2 Methods

As Bellevue continues to grow and attract more people and jobs, it is essential that the transportation system accommodates people using all modes of travel. Until recently, Bellevue's primary tool to measure the performance of the transportation system focused exclusively on private vehicle travel. In 2022, the City Council adopted the Mobility Implementation Plan (MIP), which provides a suite of multimodal metrics and tools to ensure that the transportation system better meets the needs of current and future residents. These metrics, described in this Methods section, are used as the foundation for analysis in this EIS.

The MIP is based on a concept called the "layered network." The layered network begins with land use and identifies a series of networks for each mode that "layer" together to create an interconnected multimodal transportation system. The layered network acknowledges that the existing and planned land uses influence expectations for transportation system performance.



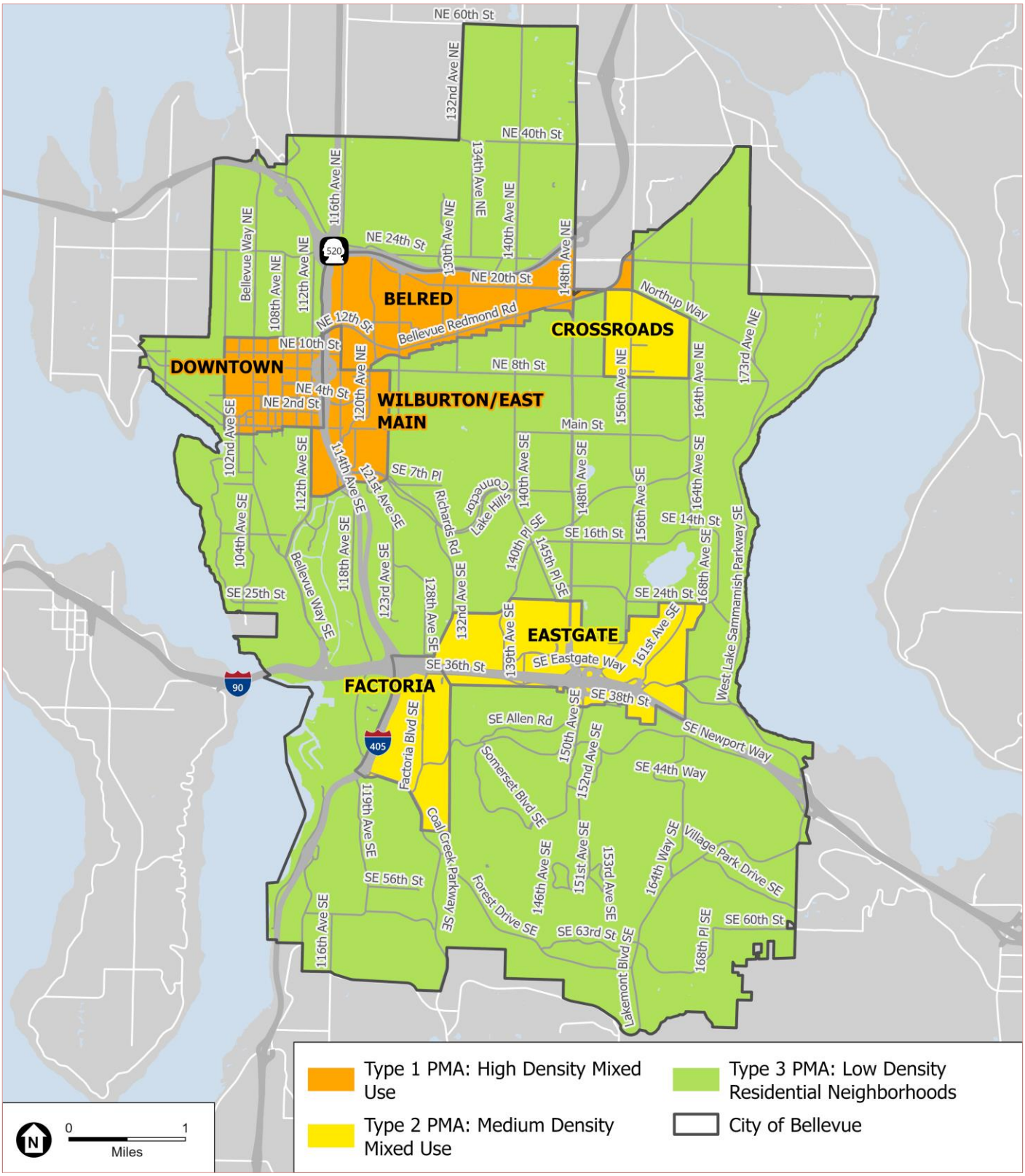
Layered Network Concept

Using the layered network approach, Bellevue has identified performance metrics and performance targets for each mode to evaluate the intended design and function within the transportation system. The layered network contains a comprehensive and connected network for pedestrians, bicyclists, transit users, and vehicles.

Bellevue has identified three Performance Management Areas (PMAs) that acknowledge the unique context and needs of the transportation system in response to varying surrounding land uses. The three PMAs are defined as:

- **Type 1 PMA – High Density Mixed Use:** Downtown, BelRed, and Wilburton-East Main are Mixed Use Centers with high density and growing land uses, light rail service, and many mobility options that provide access within the PMA and to other areas.
- **Type 2 PMA – Medium Density Mixed Use:** Crossroads, Eastgate, and Factoria are mixed commercial/residential Activity Centers with moderate density land use and frequent bus transit service.
- **Type 3 PMA – Residential:** The remainder of the city is characterized by primarily lower density residential areas with supporting retail/service land uses and fewer mobility and accessibility options.

The PMAs are used to set and monitor performance targets. Each PMA has its own set of targets for pedestrian, bicycle and vehicle modes that reflect the mobility needs and land use context of these different areas within the city. PMAs are presented in **Figure 11-2**.



SOURCE: City of Bellevue 2023

FIGURE 11-2 **Performance Management Areas**

11.2.1 Pedestrian Network Performance

Two metrics are used to measure the completeness and accessibility of the city's pedestrian network: pedestrian network completeness and arterial crossing spacing.

PEDESTRIAN NETWORK COMPLETENESS

Bellevue aspires to have a complete and connected pedestrian network with sidewalks on both sides of all arterial corridors. Each arterial is categorized as follows: sidewalks on both sides of the street; sidewalk on one side of the street; or sidewalk missing on both sides. The completeness of the network is expressed as a percentage.

ARTERIAL CROSSING SPACING

The second pedestrian network metric is spacing between designated arterial crossings at intersections or at mid-block locations. The MIP outlines spacing varying from 300 feet to 800 feet depending on location and adjacent land use. For the purposes of this EIS, arterial crossing spacing is reviewed within Type 1 and Type 2 PMAs, with each arterial categorized as either meeting or not meeting its relevant performance target.

11.2.2 Bicycle Network Performance

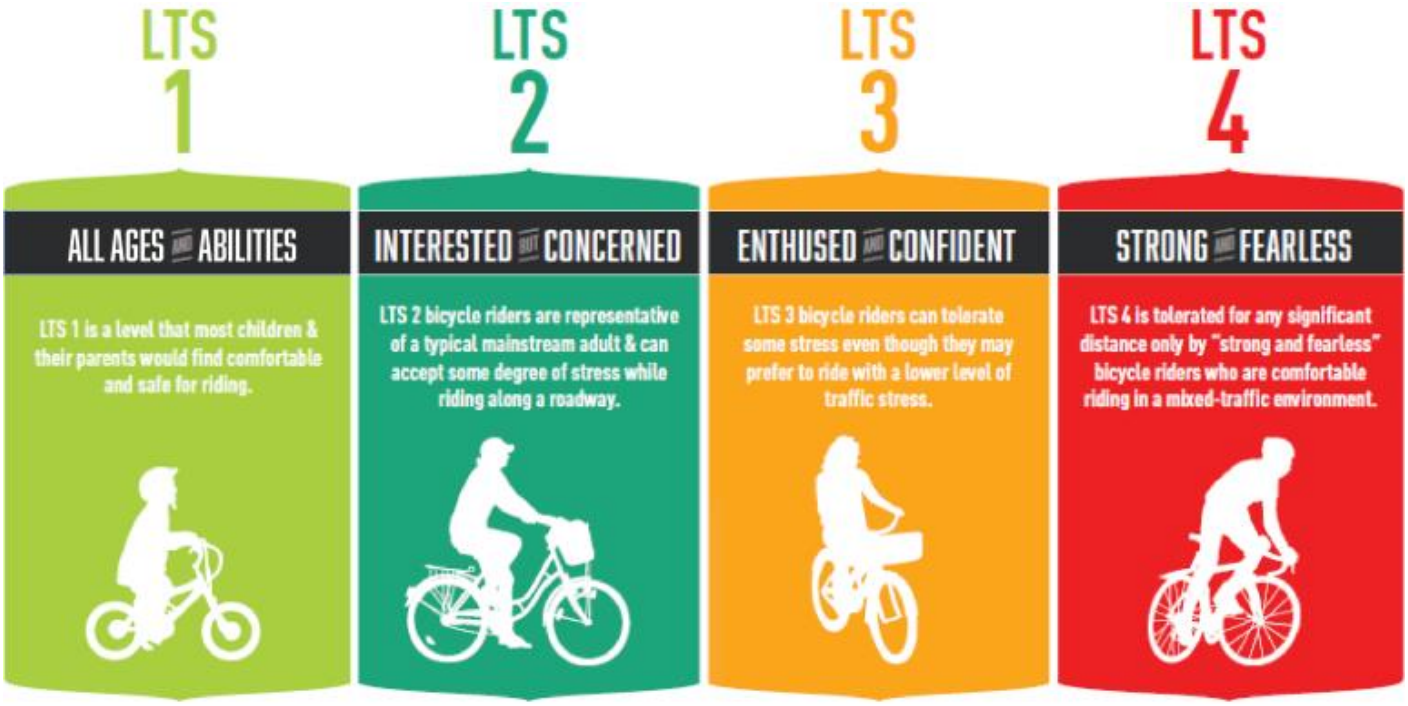
Bicycle network performance is measured using a concept known as level of traffic stress (LTS), which describes the bicycle rider's experience related to the type of bicycle facility and the speed limit and volume of traffic on the adjacent street.

Figure 11-3 describes the intended LTS metrics for bicycle network corridors, which are described as follows:

- **LTS 1: Priority Bicycle Corridors within Type 1 and Type 2 Performance Management Areas.** A high level of bicycle mobility for all ages and abilities is expected within areas where the city has the vision, intent, and policy direction to promote a medium to high-density, mixed use urban environment. LTS 1 is the default on all multipurpose paths/physically separated bikeways.
- **LTS 2: Priority Bicycle Corridors within the Type 3 Performance Management Area.** A moderate level of bicycle mobility would allow comfortable bicycling connections between

Activity Centers and on recognized regional routes such as the Lake Washington Loop.

- **LTS 3: Other Bicycle Network Corridors.** This intended LTS applies on the bicycle network on arterial streets but not part of a Priority Bicycle Corridor. This network provides connections within neighborhoods, between Activity Centers and to stops along the Frequent Transit Network (FTN).



SOURCE: City of Bellevue 2023

FIGURE 11-3 **Bicycle Level of Traffic Stress**

LTS is defined based on the type of bicycle facility provided, the posted speed limit, and the average daily traffic volume, as shown in **Table 11-1**.

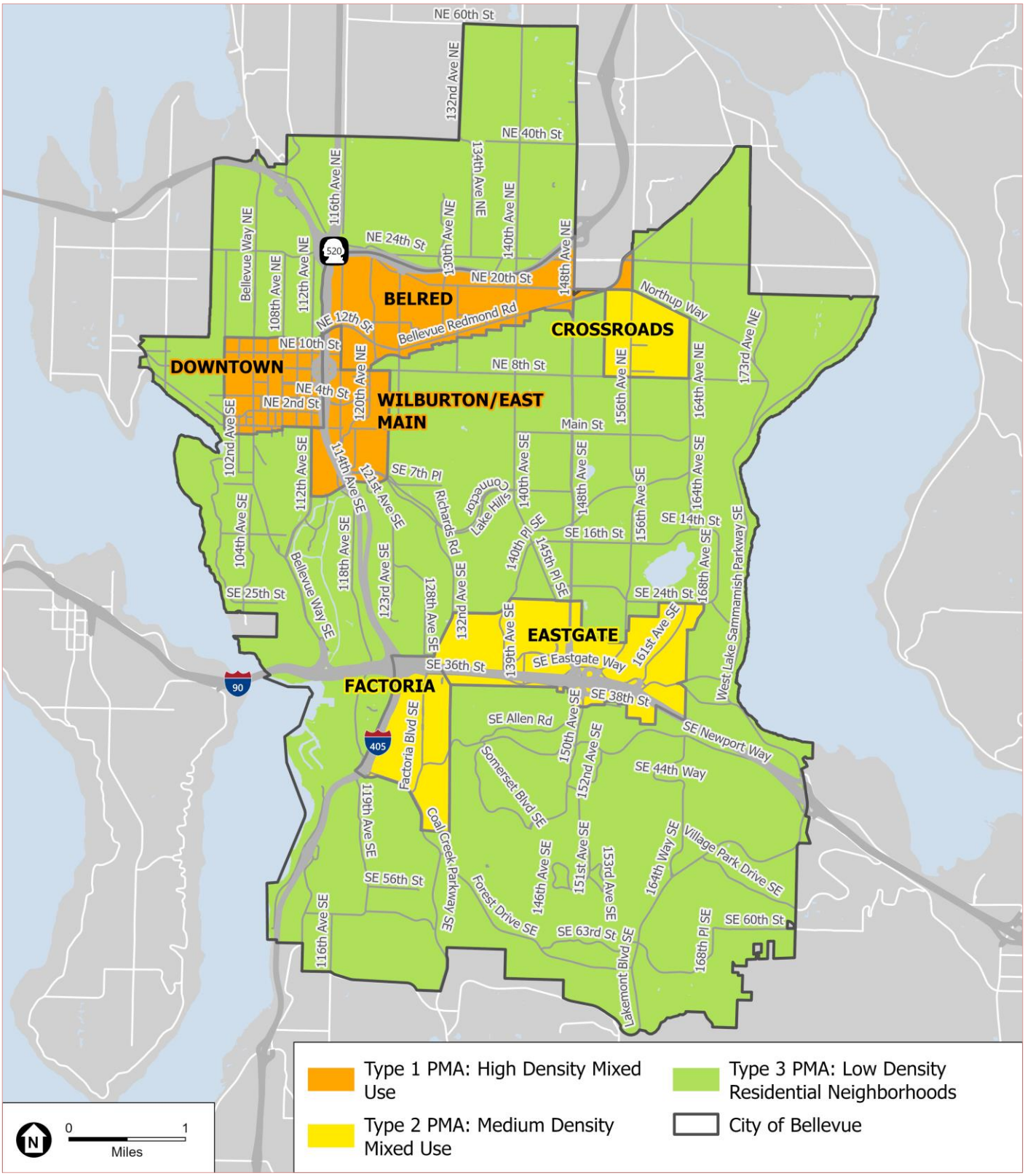
TABLE 11-1 **Bicycle Level of Traffic Stress**

Roadway Characteristics		Bicycle Facility Components: Guideline to Achieve Intended Level of Service/Level of Traffic Stress					
Speed Limit	Arterial Traffic Volume	No Marking	Sharrow Lane Marking	Striped Bike Lane	Buffered Bike Lane (horizontal)	Protected Bike Lane (vertical)	Physically Separated Bikeway
</=25	<3k	1	1	1	1	1	1
	3–7k	3	3	2	1	1	1
	>/=7k	3	3	2	2	1	1
30	<10k	3	3	2	2	1	1
	10–25k	4	4	3	3	2	1
	>/=25k	4	4	4	3	3	1
35	<25k	4	4	3	3	3	1
	>/=25k	4	4	4	3	3	1
>35	Any	4	4	4	4	3	1

SOURCE: City of Bellevue 2023

Figure 11-4 shows the intended LTS performance for the bicycle network. It also identifies the Bicycle Priority Corridors, which are a network of 11 north-south and east-west routes that serve as regional connections and provide links to key destinations.

Bicycle network performance is measured using three categories: bicycle facility meets the intended LTS, bicycle facility that does not meet the intended LTS, or a bicycle facility gap. The completeness of the network is expressed as a percentage.



SOURCE: City of Bellevue 2023

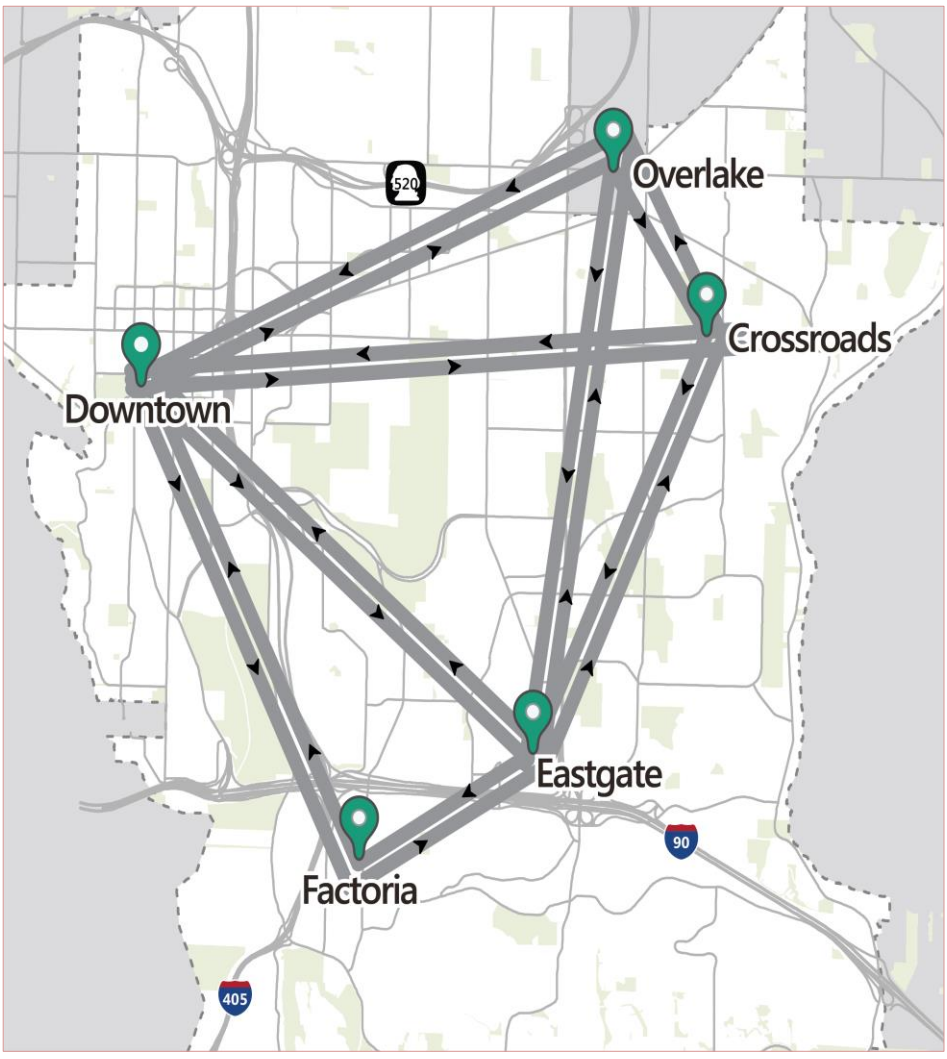
FIGURE 11-4 **Bicycle Network LTS Vision**

11.2.3 Transit Network Performance

Two performance metrics are used to measure the attractiveness and comfort of the transit network: transit travel time ratio and transit stop/station amenities.

TRANSIT TRAVEL TIME RATIO

The transit travel time ratio measures the competitiveness of transit relative to private motor vehicles by comparing the relative travel times during the peak commute hour. The ratios are calculated for trips between five Activity Centers: Downtown, Overlake, Crossroads, Eastgate, and Factoria. The Activity Center pairs are shown in **Figure 11-5**.



SOURCE: City of Bellevue 2023

FIGURE 11-5 **Transit Travel Time Ratio Activity Center Pairs**

For each designated Activity Center pair, scheduled transit travel times for the routes traveling between the Activity Centers are compared against private vehicle travel time. For existing conditions, travel times along Primary Vehicle Corridors were collected using Iteris and supplemented with Bellevue and other observed data sources covering a September 2019 timeframe. For the future year condition, forecasted transit travel times and vehicle travel times are used to estimate the transit travel time ratio. The MIP sets a performance target of 2.0; in other words, the transit trip takes no more than twice as long as the trip made by private vehicle.

TRANSIT STOP/STATION AMENITIES

The MIP identifies five amenities that it aims to provide at each transit stop or station along the FTN: weather protection, seating, paved bus door passenger zone, wayfinding, and bicycle parking. This metric reports the percentage of FTN stops/stations that have all five amenities.

11.2.4 Vehicle Network Performance

The MIP uses two performance metrics to track the efficiency and operations of the vehicle network: Primary Vehicle Corridor travel speed and System Intersection volume to capacity ratio.

PRIMARY VEHICLE CORRIDOR TRAVEL SPEED

Primary Vehicle Corridor travel speed is measured during the PM peak hour (typically the single busiest hour of the day). A Primary Vehicle Corridor is a subset of arterial corridors, which have the characteristics of being an arterial that carries 10,000 or more vehicles per day and is at least ½ mile in length. The MIP identifies the "Typical Urban Travel Speed" as 40 percent of the posted speed limit, which considers intersection delay (because vehicles rarely travel at free-flow speed along a corridor).

Performance targets are defined for each PMA relative to the Typical Urban Travel Speed, as shown in **Table 11-2**. Travel speed is expected to be lower on arterials within the Type 1 and Type 2 PMAs as there are more intersections, driveways, and modes of travel. For arterials within the Type 3 PMA, a target of 0.9 is set as driving is typically the primary mode of transportation on those corridors.

TABLE 11-2 **Primary Vehicle Corridor Travel Speed Target**

Performance Management Area	Performance Target
Type 1 PMA (High Density Mixed Use)	≥0.5 Typical Urban Travel Speed for Primary Vehicle Corridors
Type 2 PMA (Medium Density Mixed Use)	≥0.75 Typical Urban Travel Speed for Primary Vehicle Corridors
Type 3 PMA (Residential)	≥0.9 Typical Urban Travel Speed for Primary Vehicle Corridors

Peak 15-minute corridor travel times were collected in September 2019 using Iteris and supplemented with Bellevue and other observed data sources. The travel time data were then compared to the posted speed limit to determine the Primary Vehicle Corridor travel speed ratio.

SYSTEM INTERSECTION VOLUME-TO-CAPACITY RATIO

System Intersection volume-to-capacity (V/C) ratio is an operational indicator that compares the potential maximum number of vehicles that can be accommodated at an intersection to the actual number of vehicles observed traveling through the intersection. As the V/C ratio approaches 1.0, the number of vehicles traveling through the intersection is close to reaching the capacity of the intersection.

V/C ratio is calculated at 134 System Intersections throughout the city using the critical volume method as described in the latest Highway Capacity Manual. A System Intersection is defined as a signalized or roundabout intersection with two arterials or freeway ramps, and at least one arterial is a Primary Vehicle Corridor.

V/C ratio performance targets vary depending on the location of the System Intersection in one of three PMAs. **Table 11-3** provides a summary of the targets.

TABLE 11-3 **System Intersection V/C Performance Target**

Performance Management Area	Performance Target
Type 1 PMA (High Density Mixed Use)	1.0 V/C at System Intersections
Type 2 PMA (Medium Density Mixed Use)	0.9 V/C at System Intersections
Type 3 PMA (Residential)	0.85 V/C at System Intersections

SOURCE: City of Bellevue 2023

11.2.5 State Facilities

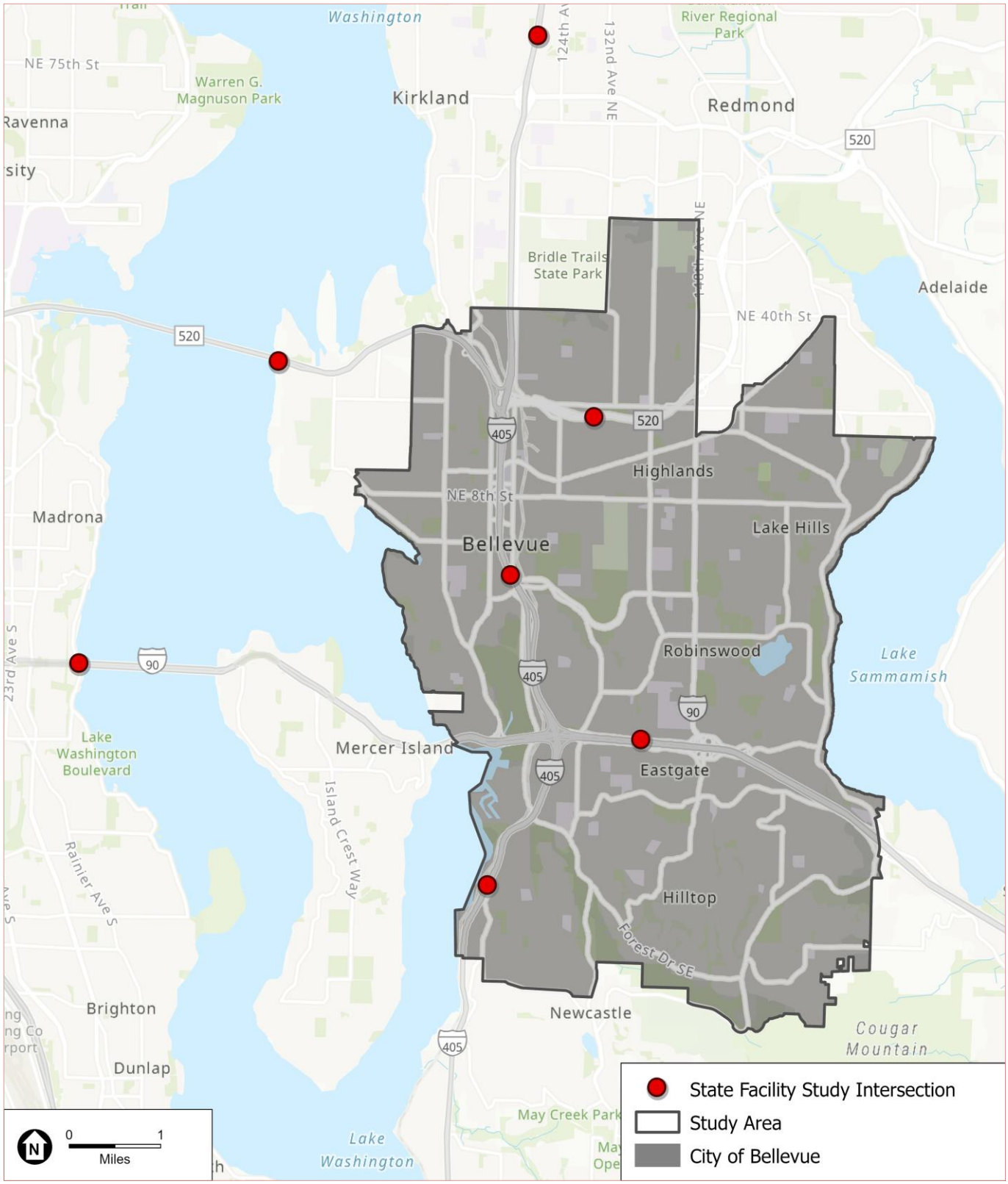
In addition to tracking the performance of the locally owned transportation network, cities must consider how state facilities are affected by local growth. Facilities owned by the Washington State Department of Transportation (WSDOT) are evaluated using a segment-based volume-to-capacity concept. For this EIS, capacities are defined using maximum service volume assumptions developed by the Florida Department of Transportation based on Highway Capacity Manual methodologies. The maximum service volumes, the highest volume a roadway can carry while still maintaining its level of service (LOS) standard, for this analysis are based on roadway characteristics including number of lanes, presence of auxiliary lanes and presence of ramp metering. Consistent with the approach to locally owned roadways, 2019 volumes are used to represent existing conditions. Annual average weekday traffic (AADT) volumes for that year were compiled from WSDOT's Traffic Count Database System. The state facility study locations are presented in **Figure 11-6**.

11.2.6 Mode Share

Mode share refers to the proportion of trips that are taken by each mode of travel: walking, bicycling, drive alone (SOV), carpool (HOV), and transit. This EIS includes the projected mode share for trips originating from or destined to Bellevue for each alternative to indicate how travel behavior is projected to change over the next two decades. The forecasts are broken out by Bellevue workers and Bellevue residents.

11.2.7 Vehicle Miles Traveled (VMT) per Capita

Vehicle Miles Traveled (VMT) is the sum of all miles traveled by vehicles in the city over the course of a particular period. For the purposes of this EIS, VMT is aggregated at the daily level and then divided by the total number of Bellevue residents and workers (sometimes called the service population). Therefore, VMT per capita is an estimate of the average number of vehicle miles traveled by each Bellevue resident and/or worker. This metric speaks to how travel behavior may shift with different land use concentrations and mixes as it captures changes in mode choice as well as vehicle trip length.



SOURCE: Fehr & Peers 2023

FIGURE 11-6 **State Facility Study Locations**

11.3 Affected Environment

This section describes the existing transportation conditions in the City of Bellevue for all modes including pedestrians, bicycles, transit, vehicles, and freight movement as well as safety and parking. Information is provided on a citywide basis and includes an in-depth analysis of the Wilburton study area.

11.3.1 Pedestrian Network Performance

The pedestrian network in Bellevue consists of sidewalks, street crossings, trails and multipurpose paths, and shared shoulders. **Figure 11-7** shows the existing network of pedestrian facilities, both on arterials and on neighborhood streets.

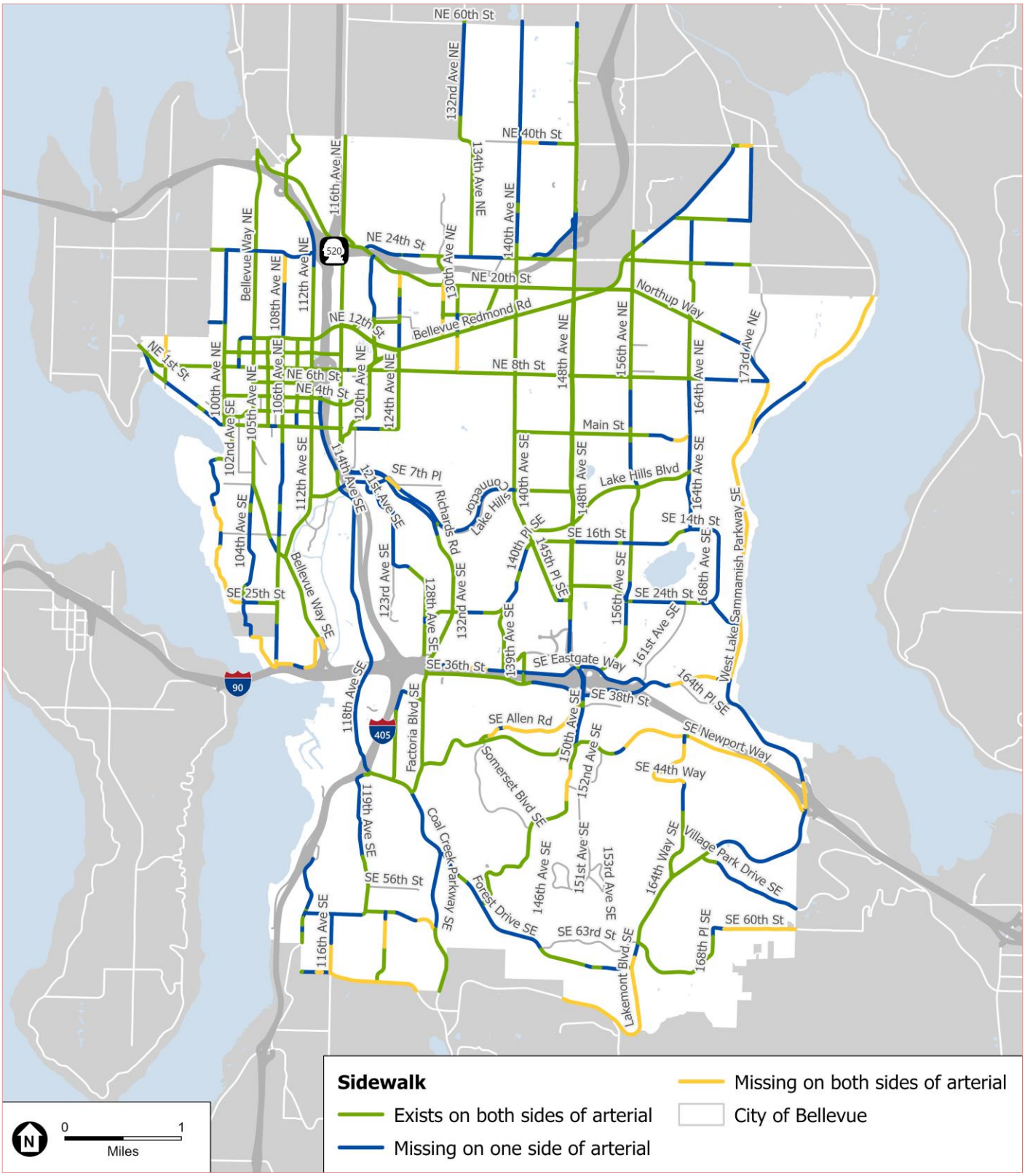
The pedestrian network is continually upgraded through a variety of methods including capital programs and as private sector developments make frontage improvements. The Neighborhood Sidewalk Program and other capital programs help address pedestrian facility needs and priorities in neighborhoods by providing a framework and criteria to evaluate and prioritize candidate projects, and funding for construction.

Figure 11-8 and **Table 11-4** summarize the pedestrian network performance using the metrics defined in the MIP, which focuses only on the pedestrian network along the city's arterial streets (a subset of the entire pedestrian network shown in Figure 11-7). Currently, 56 percent of the arterial network has sidewalks on both sides of the street, 32 percent of arterials are missing a sidewalk on one side of the street, and 12 percent of arterials have sidewalk gaps.

The Bellevue MIP sets the goal of achieving 100 percent pedestrian network completeness, which is currently only complete in Crossroads. The pedestrian network is most complete in Type 1 High Density Mixed Use PMAs, which include Downtown, BelRed, and Wilburton-East Main; Downtown and Wilburton-East Main have no sidewalk gaps, although additional work is needed to add sidewalks to both sides of some roadways. Among all PMAs, Eastgate has the lowest proportion of sidewalks complete on both sides. However, the Type 3 Residential PMA also has less than half of the arterial network with sidewalks on both sides and has sidewalk gaps on 16 percent of the arterial network.

SOURCE: Bellevue 2023

FIGURE 11-7 **Existing Pedestrian Facilities**



SOURCE: City of Bellevue 2023

FIGURE 11-8 **Existing Pedestrian Network Performance**

TABLE 11-4 **Existing Pedestrian Network Performance Target Results**

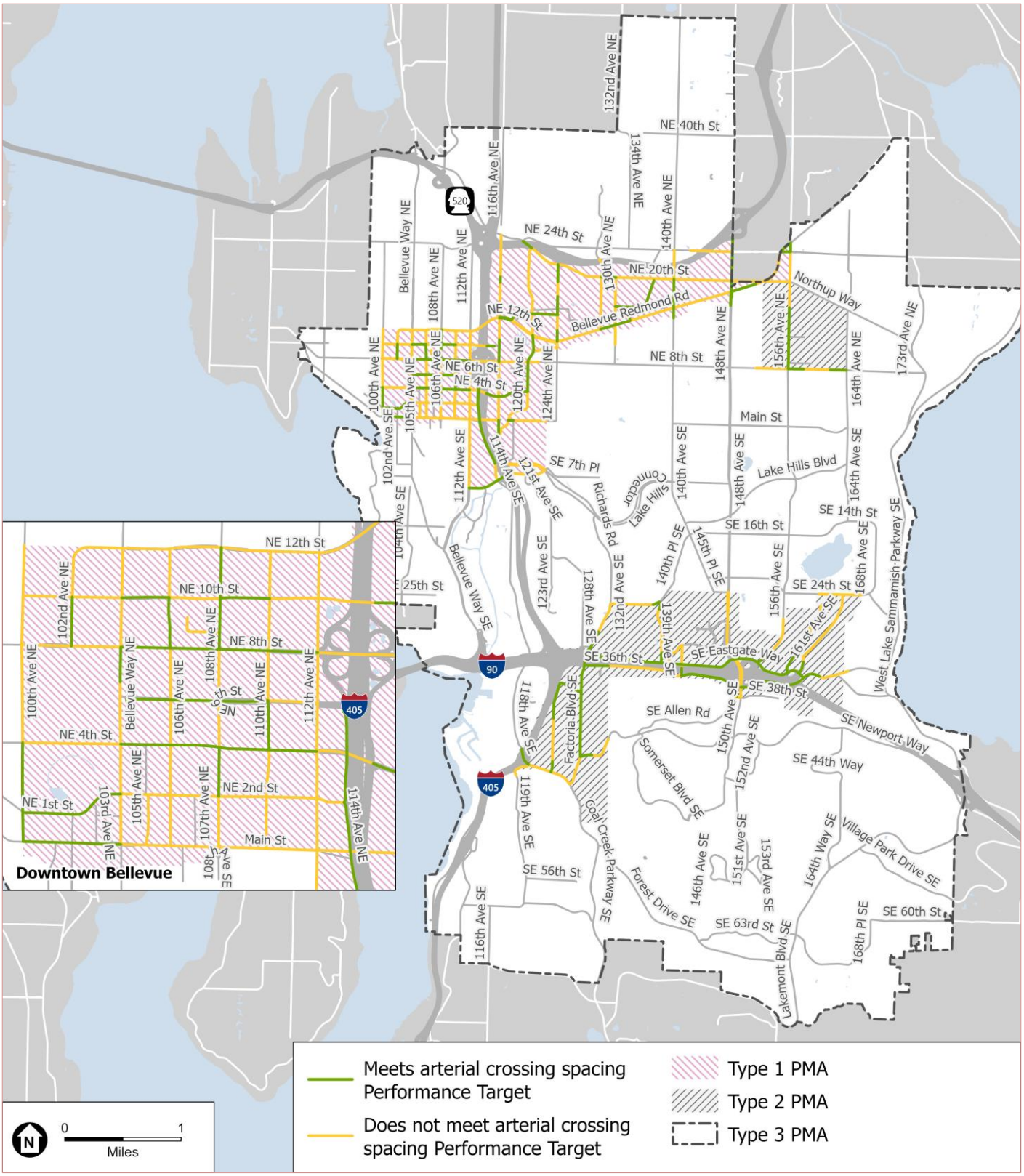
Citywide		Sidewalks on Both Sides	Sidewalk on One Side	Sidewalk Gaps
Miles		77	44	17
Proportion of Total		56%	32%	12%
Performance Management Area		**Sidewalks on Both Sides**	**Sidewalk on One Side**	**Sidewalk Gaps**
Type 1 PMA – High Density Mixed Use	Downtown	95%	5%	0%
	BelRed	86%	8%	6%
	Wilburton-East Main	75%	25%	0%
Type 2 PMA – Medium Density Mixed Use	Crossroads	100%	0%	0%
	Eastgate	29%	63%	8%
	Factoria	70%	28%	2%
Type 3 PMA – Residential		47%	37%	16%

SOURCE: Fehr & Peers 2023

Figure 11-9 presents pedestrian arterial crossing spacing performance within Type 1 and Type 2 PMAs. Recommended minimum spacing between designated arterial crossings varies from 300 feet to 800 feet depending on the location and the nearby land use. Most corridors throughout those areas require additional pedestrian crossings to meet the arterial crossing spacing targets.

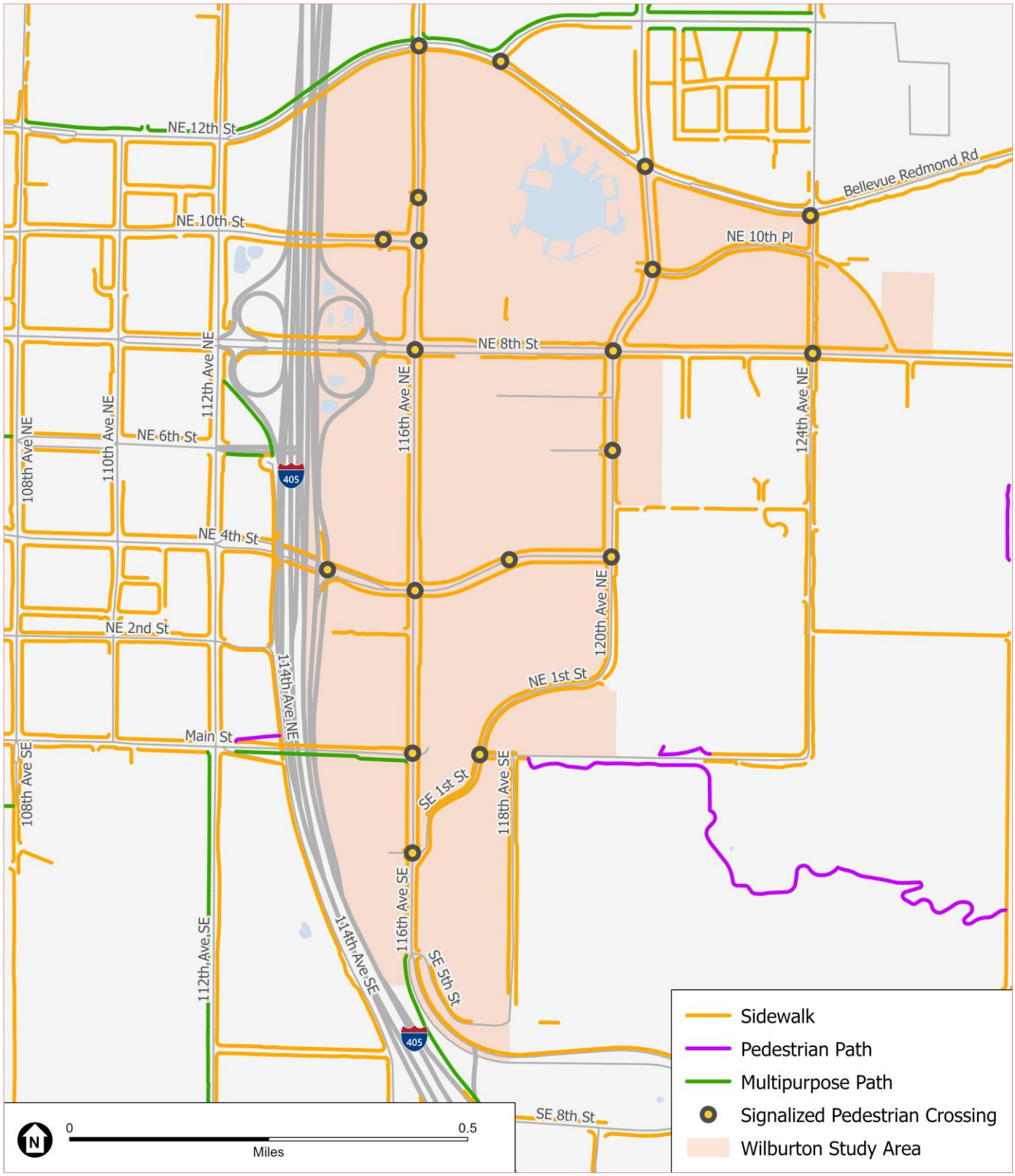
PEDESTRIAN NETWORK IN THE WILBURTON STUDY AREA

Pedestrians can access the Wilburton study area from all directions, although connections are limited. Existing pedestrian facilities are mapped in **Figure 11-10**. From the west, pedestrians can cross I-405 at NE 12th Street, NE 10th Street, NE 8th Street, NE 4th Street, and Main Street. The crossing at NE 8th Street is particularly difficult for pedestrians due to the cloverleaf ramps to and from I-405 that must be crossed without the aid of traffic signals. From the east, pedestrians can access the Wilburton study area via Bel-Red Road/NE 12th Street, NE 8th Street, NE 5th Street, and Main Street.



SOURCE: Bellevue 2023

FIGURE 11-9 **Existing Pedestrian Arterial Crossing Spacing Performance**



SOURCE: Bellevue 2023

FIGURE 11-10 **Existing Pedestrian Facilities in the Wilburton Study Area Vicinity**

From the north, the Wilburton study area is primarily accessed via 116th Avenue NE, 120th Avenue NE, and 124th Avenue NE. The northern side of NE 12th Street is a multipurpose path that provides east-west pedestrian access throughout the Wilburton study area. The new Main Street bridge over I-405 mirrors the NE 12th Street bridge, with a multipurpose path on the south side and a sidewalk on the north side. Pedestrians can access the Wilburton study area via the Lake Hills Connector, which turns into 116th Avenue NE at about SE 5th Street, and local roads east of 118th Avenue SE and south of Main Street.

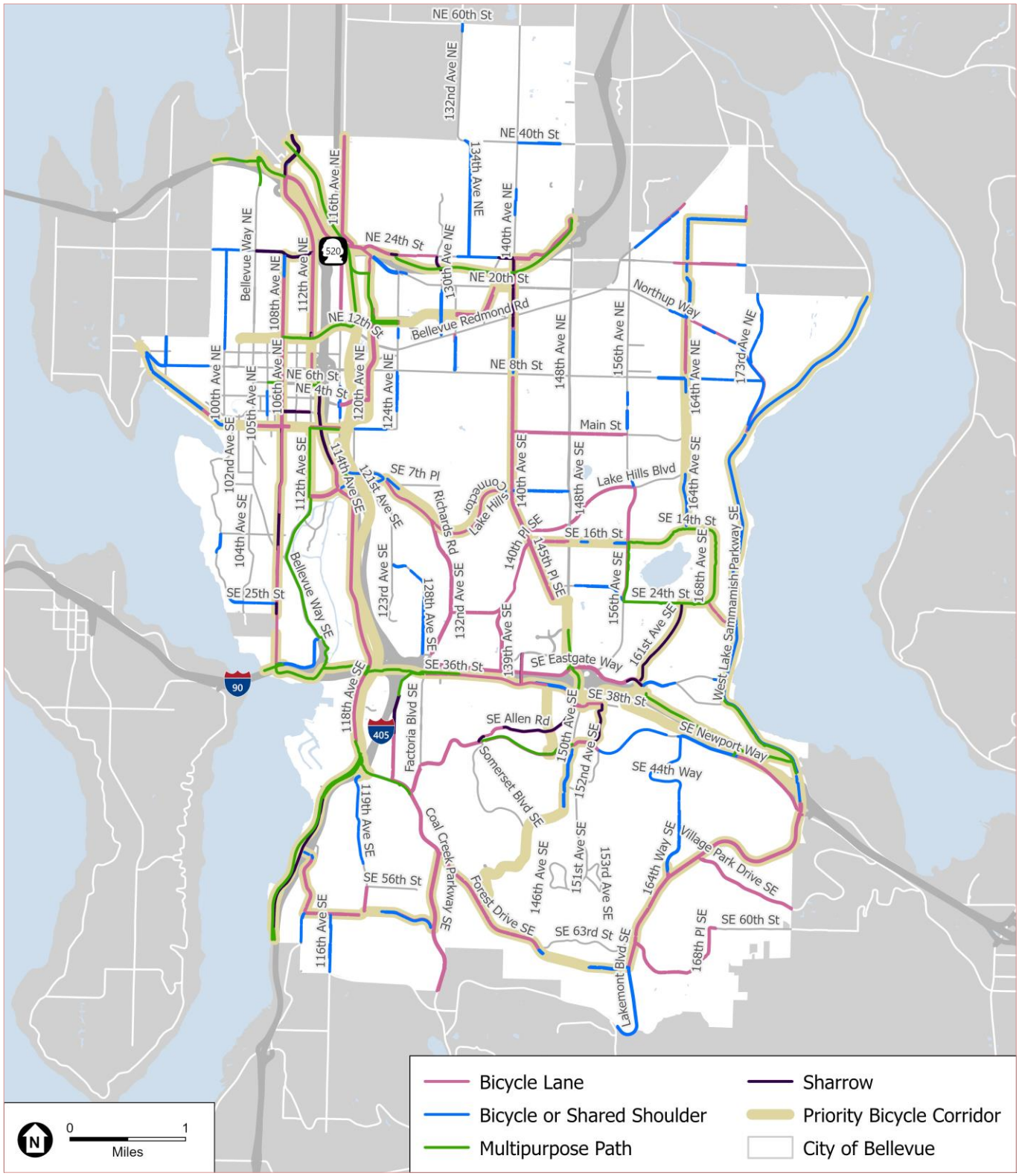
The Wilburton study area is also central to the Lake to Lake Trail and Greenway which connects nine parks across Bellevue including Wilburton Hill Park. The Lake to Lake Trail and Greenway stretches from Weowna Park on Lake Sammamish to Enatai Beach Park and Clyde Beach Park on Lake Washington.

As shown in Table 11-4, 75 percent of the arterial network in the Wilburton-East Main PMA has sidewalks on both sides of the road and the remaining arterials have a sidewalk on one side. There are currently no sidewalk gaps on the arterial network in the Wilburton-East Main PMA.

11.3.2 Bicycle Network Performance

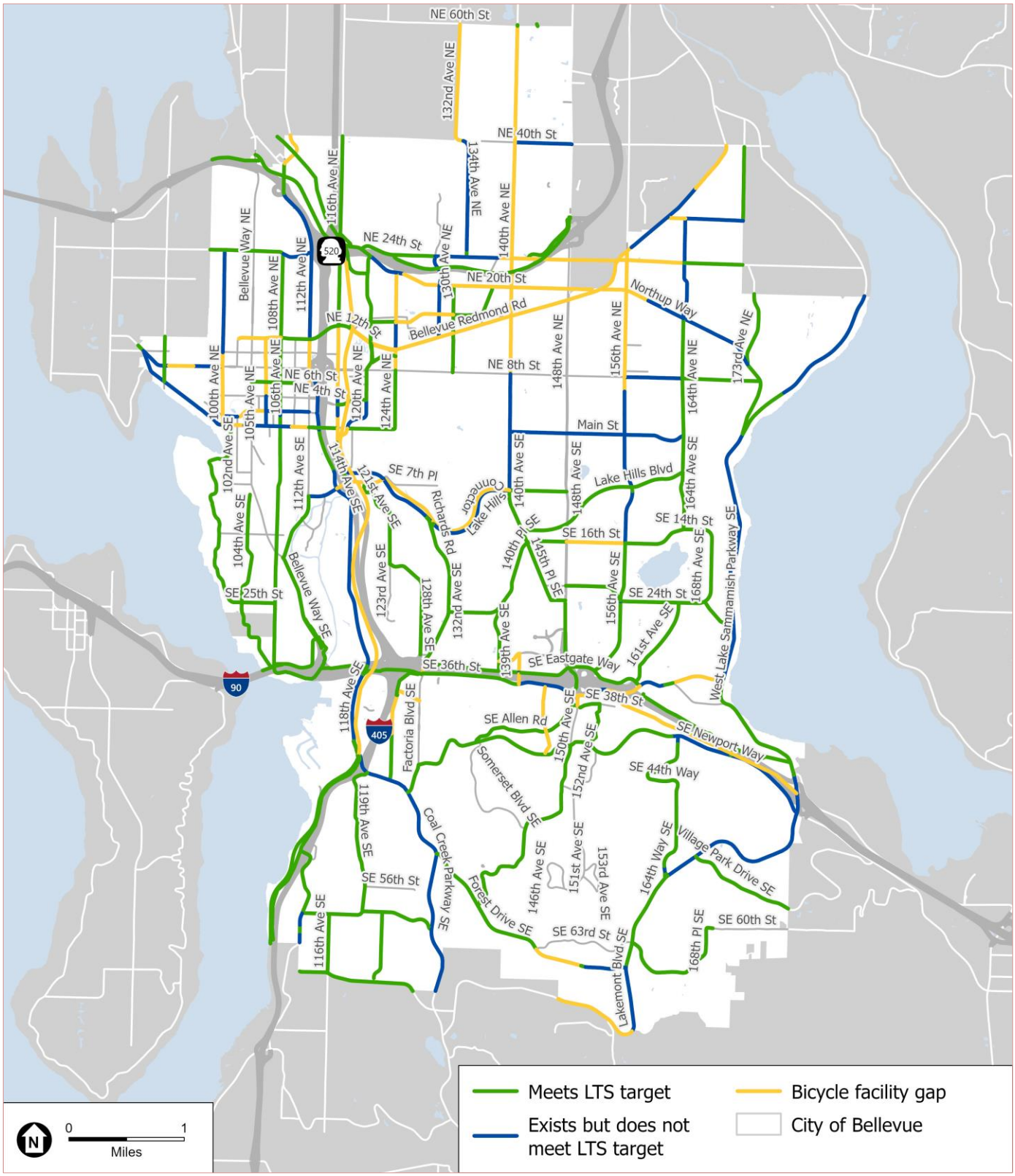
Bellevue's bicycle network is defined in the Pedestrian and Bicycle Transportation Plan and facility types are refined and the intended performance targets are described in the MIP. Bicycle facility types include bicycle lanes, trails, multipurpose paths, and streets with sharrows. Bicyclists may also use shared shoulders for travel, but such facilities do not count toward LTS or network completeness within the MIP framework. **Figure 11-11** displays the existing bicycle facilities in Bellevue. **Figure 11-12** and **Table 11-5** display the bicycle network performance using the metrics defined in the MIP. Citywide, slightly more than half of the bicycle network achieves the intended LTS, with the remaining portion evenly split between having an existing facility that does not meet the intended LTS and those with no facilities.

The Eastgate, Factoria, and Type 3 Residential PMAs all have more than half of their bicycle networks complete with facilities that meet the intended LTS and less than 20 percent of their network with facility gaps. The highest percentage of facility gaps occurs in BelRed.



SOURCE: City of Bellevue 2023

FIGURE 11-11 **Existing Bicycle Network Facilities**



SOURCE: City of Bellevue 2023

FIGURE 11-12 **Existing Bicycle Network Performance**

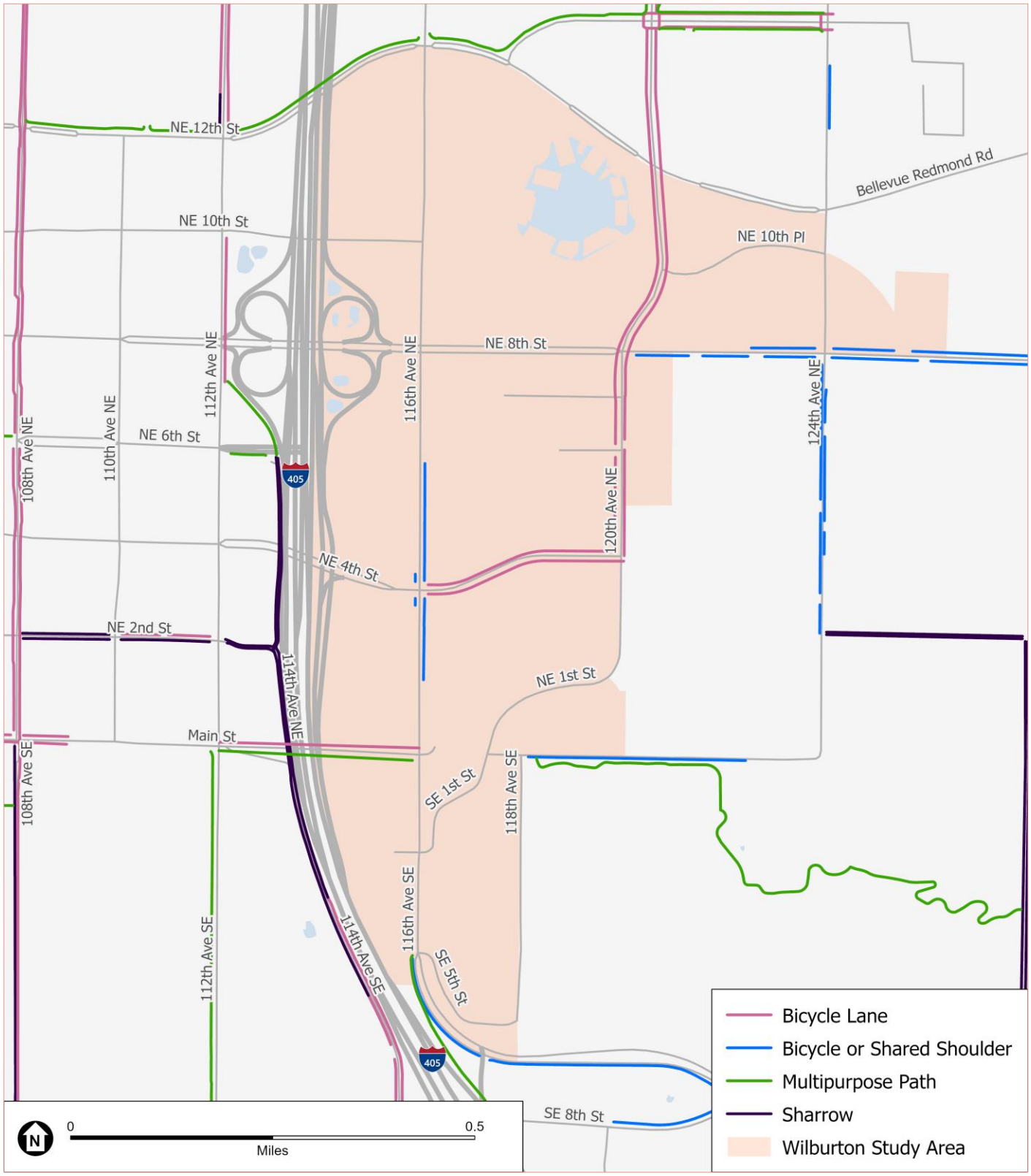
TABLE 11-5 **Existing Bicycle Network Performance Target Results**

Citywide		Facility Meets LTS	Facility Does Not Meet LTS	Facility Gaps
Miles		72	33	33
Proportion of Total		52%	24%	24%
Performance Management Area		**Facility Meets LTS**	**Facility Does Not Meet LTS**	**Facility Gaps**
Type 1 High Density Mixed Use	Downtown	27%	36%	37%
	BelRed	37%	8%	55%
	Wilburton-East Main	47%	14%	38%
Type 2 Medium Density Mixed Use	Crossroads	1%	59%	40%
	Eastgate	60%	24%	16%
	Factoria	58%	27%	15%
Type 3 Residential		57%	25%	18%

SOURCE: Fehr & Peers 2023

BICYCLE NETWORK IN THE WILBURTON STUDY AREA

Bicycle infrastructure is limited within the Wilburton study area. As shown in **Figure 11-13**, bicycle lanes are provided on 120th Avenue NE between NE 4th Street and Spring Boulevard, as well as on NE 4th Street between 116th Avenue NE and 120th Avenue NE. A multipurpose path on the north side of the NE 12th Street/Spring Boulevard corridor connects 108th Avenue NE and 120th Avenue NE at the north perimeter of the study area, and a new multipurpose path on the south side of the Main Street bridge over I-405 and a bike lane on the north side of the bridge connects 112th Avenue NE to 116th Avenue NE on the south perimeter of the Wilburton study area. Bicycle lanes on both sides of 116th Avenue NE north of NE 12th Street provide a connection between the study area and the State Route (SR) 520 Trail. A multipurpose path connects 116th Avenue SE with SE 8th Street and from there to the I-90 Trail.



SOURCE: City of Bellevue 2023

FIGURE 11-13 **Existing Bicycle Network Facilities in the Wilburton Study Area Vicinity**

11.3.3 Transit Network Performance

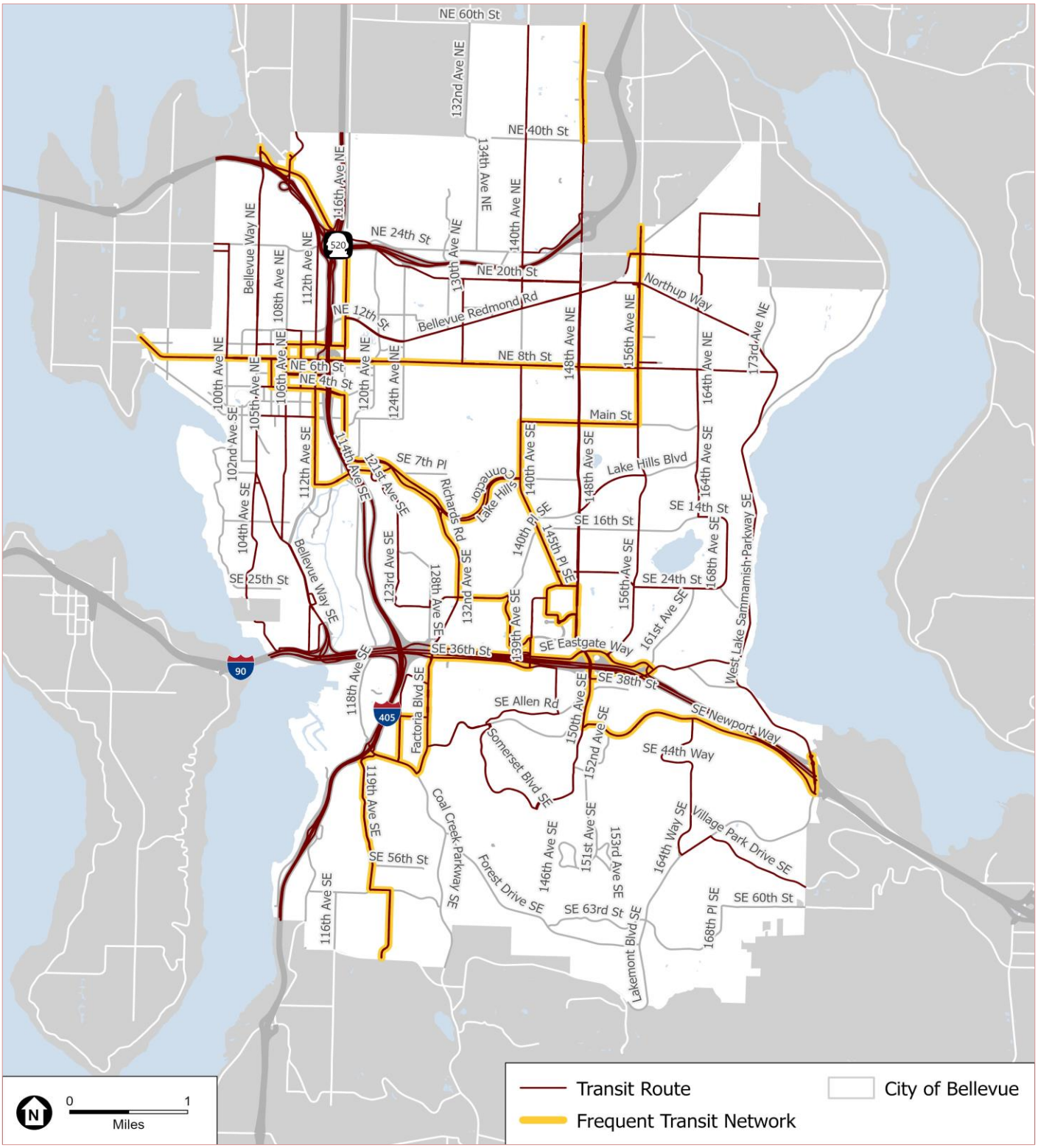
The City of Bellevue is served by an extensive network of transit routes operated by King County Metro and Sound Transit.

Existing transit routes are mapped in **Figure 11-14**. The City of Bellevue has developed a Transit Master Plan, which identifies FTN corridors for prioritized service enhancements and capital projects to improve transit speed and reliability. This network represents a long-term vision of interconnected bus routes throughout the city. Once East Link light rail opens, that would also become part of the FTN.

King County Metro operates a network of fixed-route services, including the RapidRide B Line, which provides service every 10 minutes during peak hours between the Redmond Transit Center and Bellevue Transit Center. Sound Transit operates several regional routes in Bellevue, including routes 550 (Bellevue - Seattle), 554 (Issaquah – Seattle), and 556 (Issaquah – University District).

Table 11-6 summarizes the existing King County Metro and Sound Transit routes. Transit investment continues to be a regional priority. Over the next few years, several additional frequent routes will serve residents and employees, including East Link light rail and Stride S1 and S2 bus rapid transit lines along I-405. With the opening of East Link, some bus routes will change. For example, Route 550 is currently an FTN route, but may not be after East Link opens. therefore, for this analysis, that route is not considered as part of the FTN shown in Figure 11-14 and **Figure 11-15**.

Transit network performance (expressed in terms of a travel time ratio) is presented in **Figure 11-16** and **Table 11-7**. Five of 16 transit trip pairings between Activity Centers meet the transit travel time performance target, including: Downtown to Crossroads, Downtown to Eastgate, Downtown to Overlake, and Factoria to and from Eastgate. The other Activity Center pairs exceed the 2.0 performance target meaning a transit trip would take more than twice as long as a trip by private vehicle. The transit travel time ratios that do not meet the performance target are **shown in bold**.



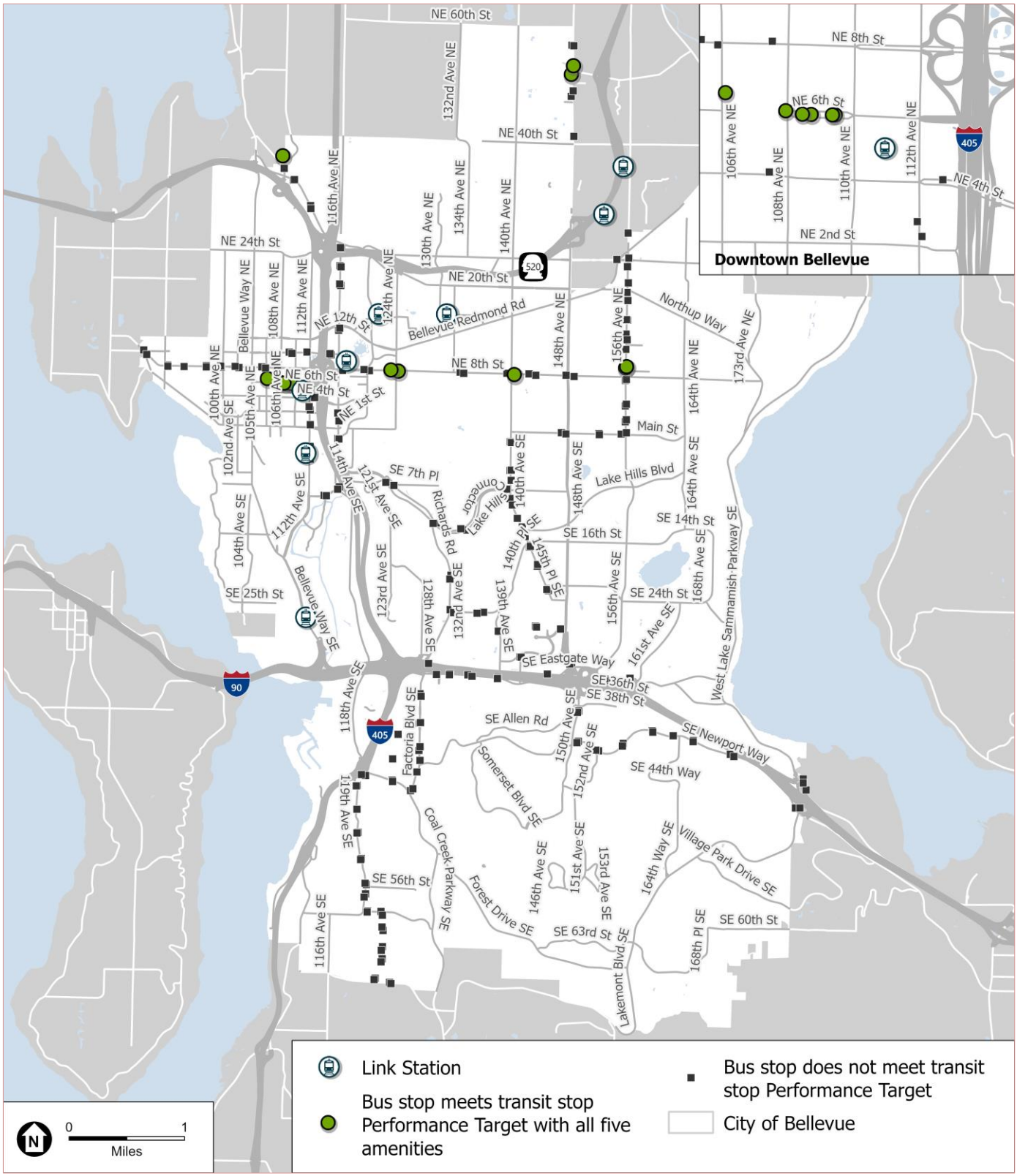
SOURCE: City of Bellevue 2023

FIGURE 11-14 **Existing Transit Routes, 2021**

TABLE 11-6 **Existing (2022) Transit Frequencies**

Route	Route Description	AM Peak Frequency	PM Peak Frequency	Midday Frequency
114	Lake Kathleen to Downtown Seattle	35	30	N/A
167	Renton to University District	35	30	N/A
212	Eastgate P&R to Downtown Seattle	20	20	N/A
217	Downtown Seattle to North Issaquah	25	25	N/A
218	Issaquah to Downtown Seattle	20	50	N/A
221	Education Hill to Eastgate P&R	30	30	30
226	Bellevue, Factoria, Eastgate P&R	30	30	30
232	Bellevue to Duvall (and partial 342)	30	30	N/A
237	Woodinville to Bellevue	30	50	N/A
240	Bellevue to Renton	20	20	20
241	Bellevue to Eastgate	30	30	30
245	Kirkland to Factoria	15	15	15
246	Clyde Hill to Eastgate P&R	60	60	60
249	Overlake to Bellevue	35	35	60
250	Avondale to Bellevue	15	15	15
269	Issaquah to Overlake	30	30	30
271	Issaquah to University District	10	10	15
342	Shoreline P&R to Renton	35	35	N/A
532	Everett to Bellevue	15	20	N/A
535	Lynnwood to Bellevue	30	30	30
550	Bellevue to Seattle	10	10	15
554	Issaquah to Seattle	20	20	20
556	Issaquah to University District	30	30	N/A
560	Westwood Village to Bellevue	30	30	30
566	Auburn to Redmond	25	30	30
981	Serves Lakeside School to Totem Lake (School Route)	N/A	N/A	N/A
989	Serves University Preparatory Academy to Haller Lake (School Route)	N/A	N/A	N/A
B	Redmond to Bellevue	10	10	30

SOURCE: King County Metro 2023; Sound Transit 2023



SOURCE: City of Bellevue 2023

FIGURE 11-15 **Existing FTN Transit Stop Performance, 2021**

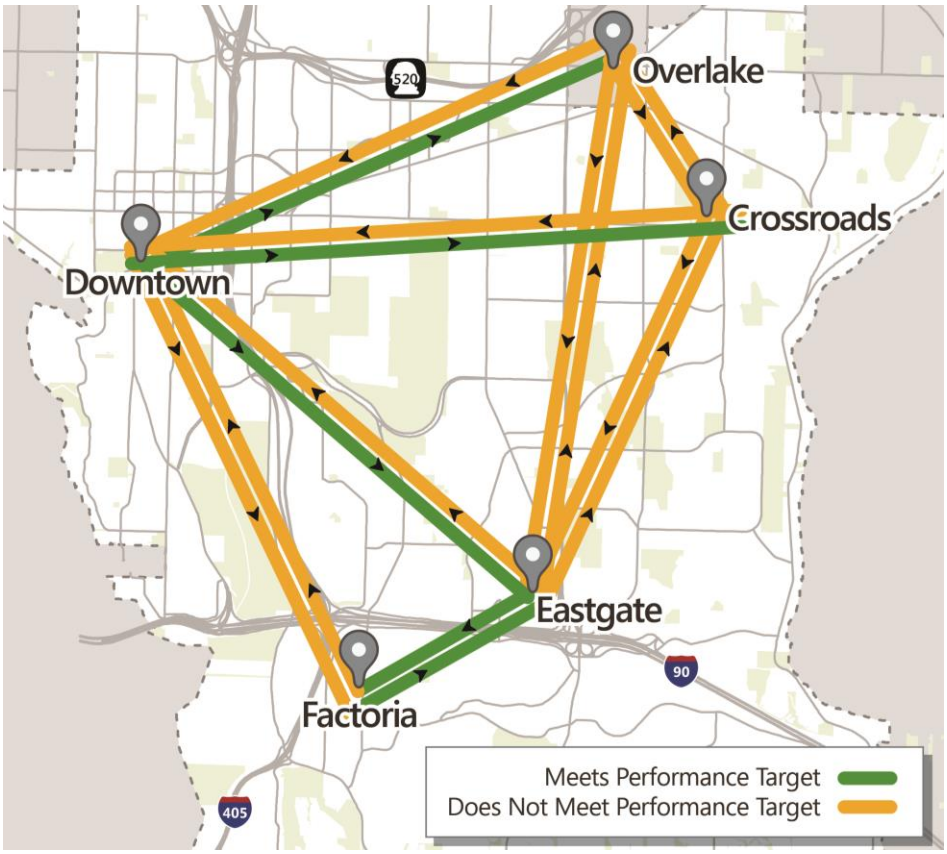


FIGURE 11-16 **Existing Transit Network Performance**

TABLE 11-7 **Existing Transit Travel Time Ratio (Target is 2.0)**

	Downtown	Crossroads	Eastgate	Factoria	Overlake
Downtown	—	1.65	1.81	**2.82**	1.78
Crossroads	**2.14**	—	**2.13**	—	**2.11**
Eastgate	**2.63**	**2.54**	—	1.50	**2.58**
Factoria	**3.32**	—	1.84	—	—
Overlake	**2.35**	**2.11**	**2.20**	—	—

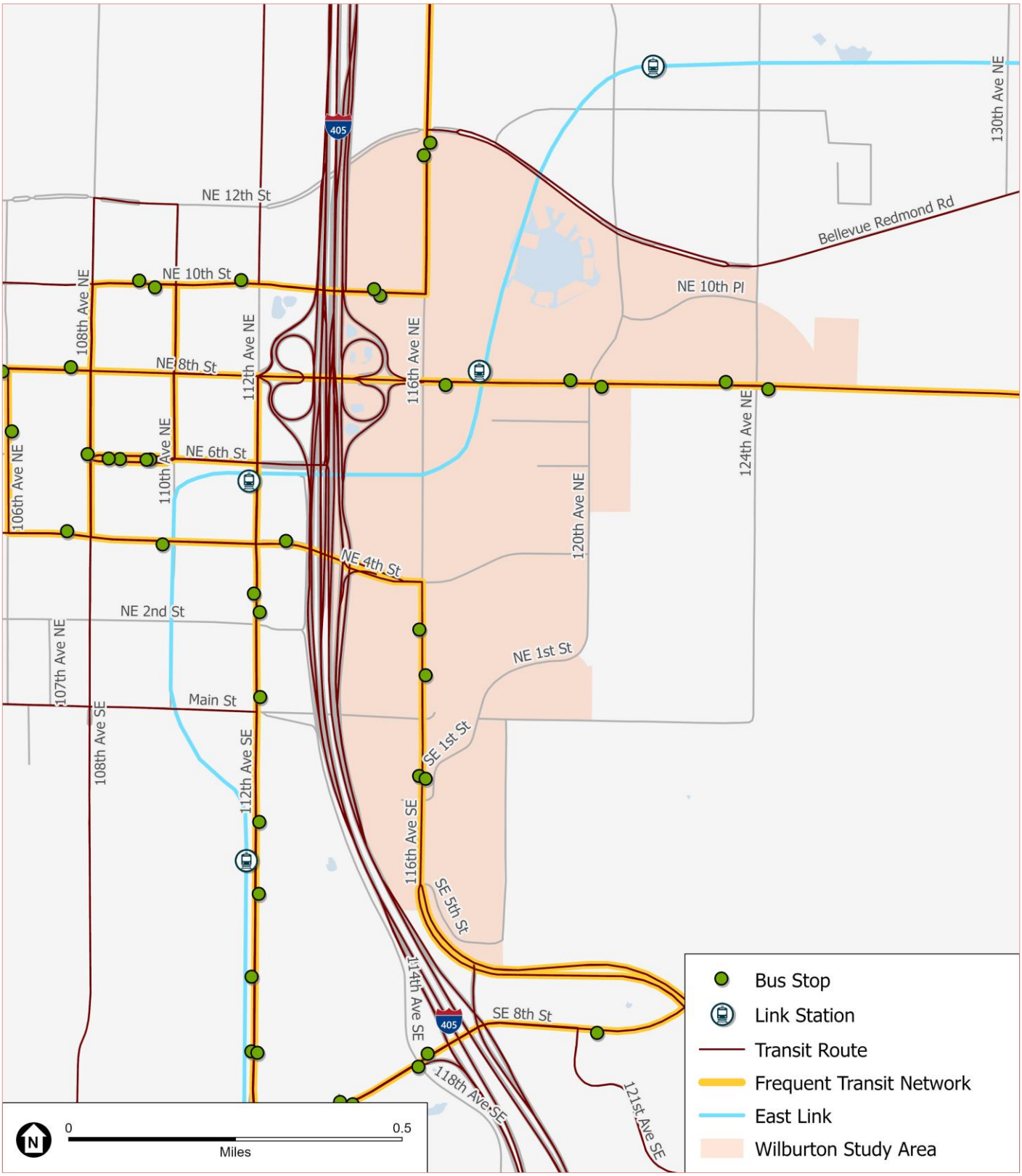
SOURCE: City of Bellevue 2023

Existing FTN transit stop performance (expressed as the amenities present) is presented in Figure 11-15. Note that East Link stations are not evaluated for transit stop performance though they are expected to provide the passenger amenities defined in the MIP relevant to rail service (weather protection, seating, wayfinding, and bicycle parking). Of the 227 transit stops along the FTN, approximately 6 percent meet the transit stop performance target with all five amenities. Many other stops have multiple transit amenities, but not all five. Bellevue will continue to work with the transit agencies to upgrade amenities at transit stops and RapidRide stations.

TRANSIT NETWORK IN THE WILBURTON STUDY AREA

The Wilburton study area is served by several transit routes, including the 226, 234, 235, 271, and RapidRide B, with service that runs primarily along NE 8th Street and 116th Avenue NE within the neighborhood.

Existing transit service in the Wilburton study area is shown in **Figure 11-17**. This includes frequent transit along the NE 10th Street, NE 8th Street, NE 4th Street, and 116th Avenue NE corridors. Only one transit stop pair in the Wilburton study area has all five transit stop amenities: at the intersection of NE 8th Street and 124th Avenue NE. The Wilburton study area will soon be served by East Link with a station just north of NE 8th Street and east of 116th Avenue NE. In addition, several other stations would be within a short walking distance of the Wilburton study area: Downtown (NE 6th Street and 112th Avenue NE), East Main (112th Avenue SE south of Main Street), and Spring District/120th (north of Spring Boulevard east of 120th Avenue NE). The light rail stations are shown for reference, although East Link service has not yet begun.



SOURCE: City of Bellevue 2023

FIGURE 11-17 **Existing Transit Facilities in the Wilburton Study Area Vicinity**

11.3.4 Vehicle Network Performance

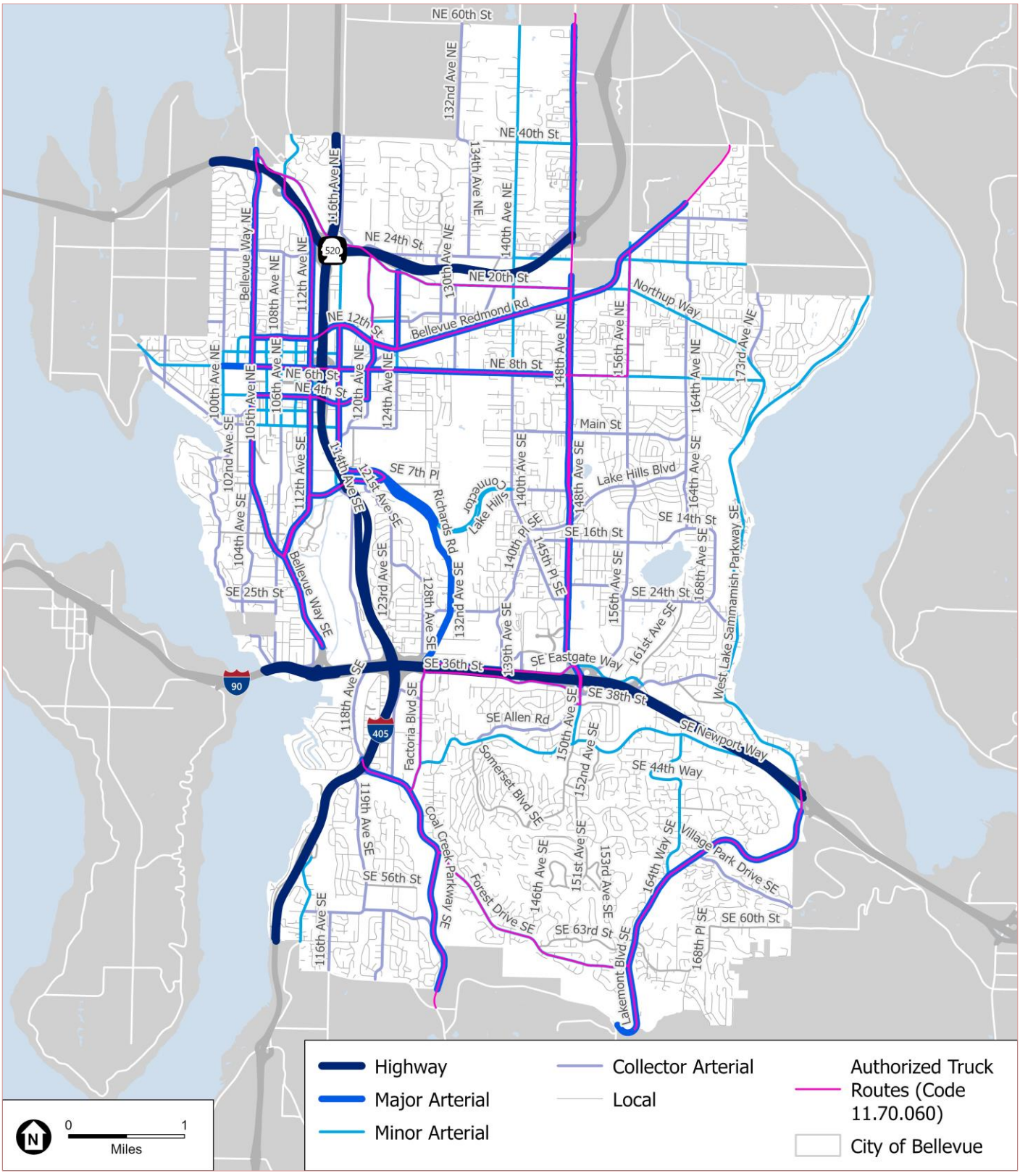
Figure 11-18 summarizes the functional classifications of arterial streets in Bellevue, comprised of highways, major arterials, minor arterials, collector arterials, local roadways, and authorized truck routes (as identified in Bellevue City Code 11.70.060).

In addition to streets managed by Bellevue, three major highways run through the city: I-405, I-90, and SR 520. I-405 is the main north–south highway through Bellevue, providing regional connections to neighboring communities such as Newcastle, Kirkland, Totem Lake, Bothell, and beyond. SR 520 and I-90 are east–west freeways located on the north and south sides of the city respectively and connect communities on the east side of Lake Washington to Seattle.

The Bellevue Transportation Department has designated a network of authorized truck routes to facilitate the movement of goods to and through the city. Where possible, all truck traffic is restricted to the state highway system or along one of the 20 authorized routes**.** The designation of these routes allows the Bellevue Transportation Department to better plan for the appropriate street design, traffic management and pavement rehabilitation.

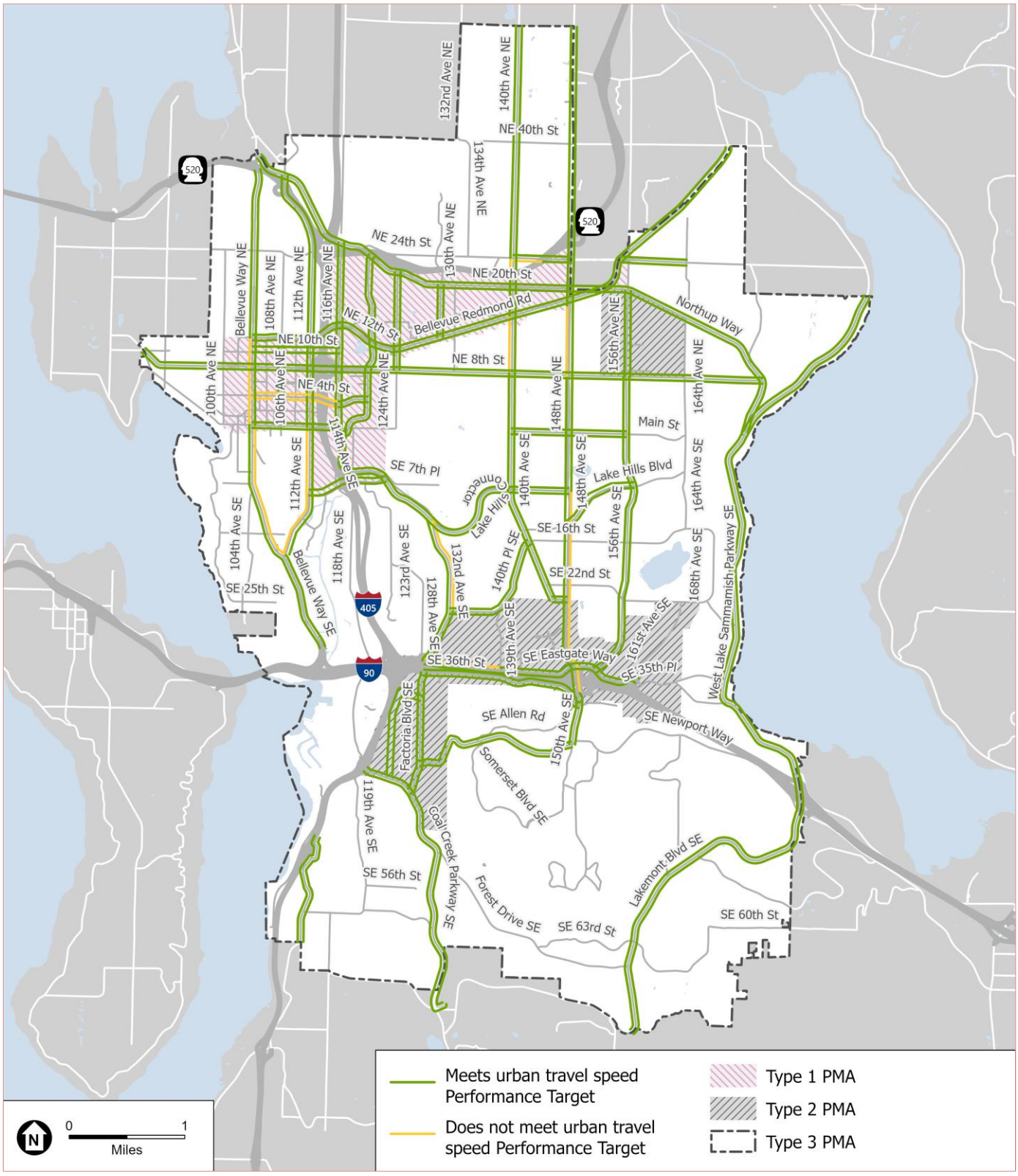
Figure 11-19 summarizes Primary Vehicle Corridor performance. Most primary vehicle corridors meet their performance targets; those that do not meet the target are typically in or connect to Type 1 or Type 2 PMAs.

Table 11-8 summarizes the proportion of the 134 total System Intersections that currently meet their performance target by PMA. Nine in ten intersections in Type 1 and Type 2 PMAs currently meet their target. The proportion of System Intersections that meet their performance target in the Type 3 PMA is lower at 78 percent. There are a number of intersections along NE Spring Blvd (following the Link light rail station construction) that do not have data and will be addressed as the intersections become operational. System Intersection performance is mapped in **Figure 11-20**.



SOURCE: City of Bellevue 2023

FIGURE 11-18 **Arterial Functional Classification and Truck Routes**



SOURCE: City of Bellevue 2023

FIGURE 11-19 **Existing Primary Vehicle Corridor Performance**

TABLE 11-8 **Existing Vehicle Network Performance – System Intersections**

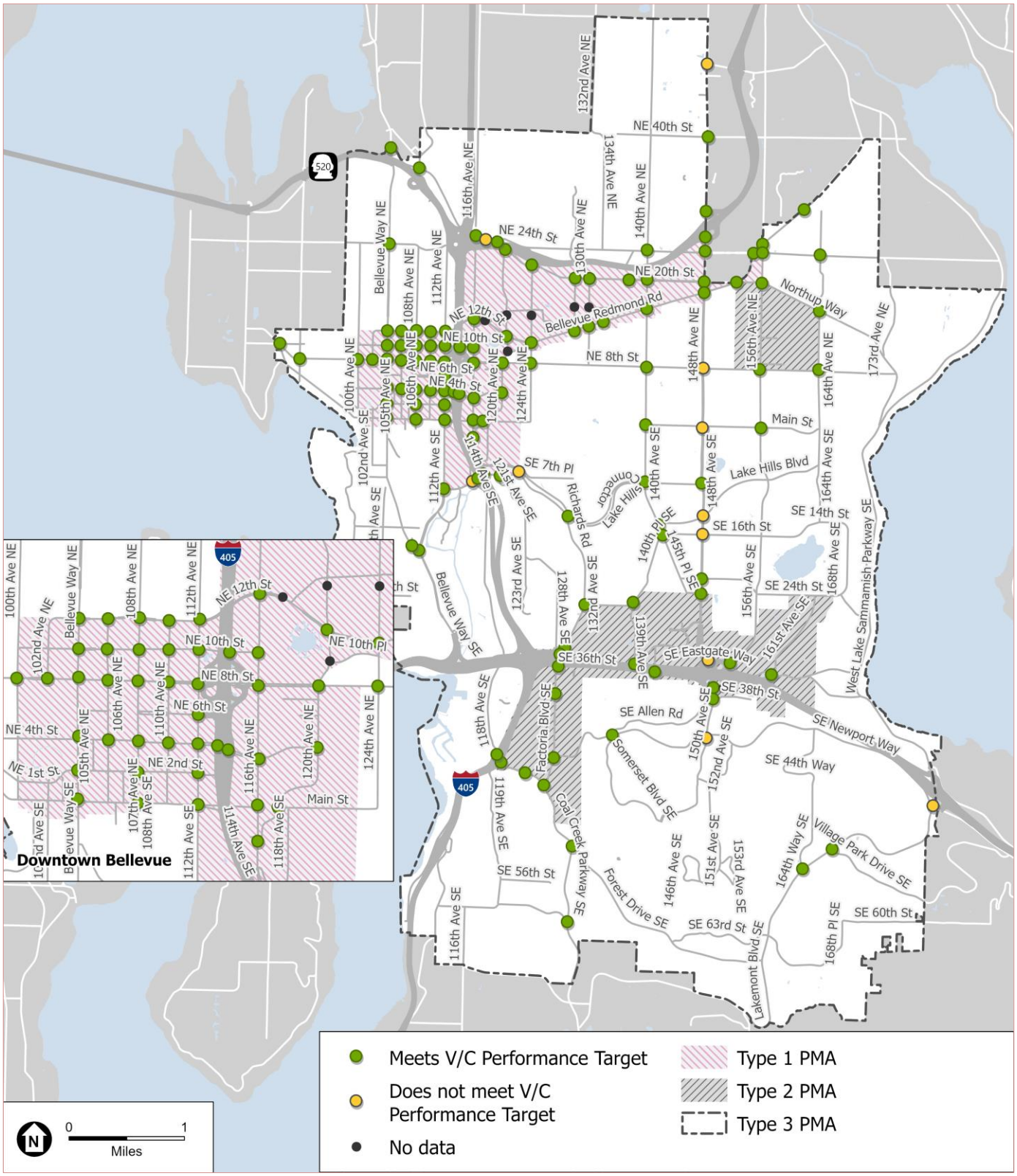
Performance Management Area	Performance Target	% of Intersections That Meet Target	% of Intersections That Do Not Meet Target	% of Intersections with No Data
Type 1 PMA	1.00	89%	3%	8%
Type 2 PMA	0.90	92%	4%	4%
Type 3 PMA	0.85	78%	22%	0%
Total System intersections		***87%***	***8%***	***5%***

SOURCE: City of Bellevue 2023

VEHICLE NETWORK IN THE WILBURTON STUDY AREA

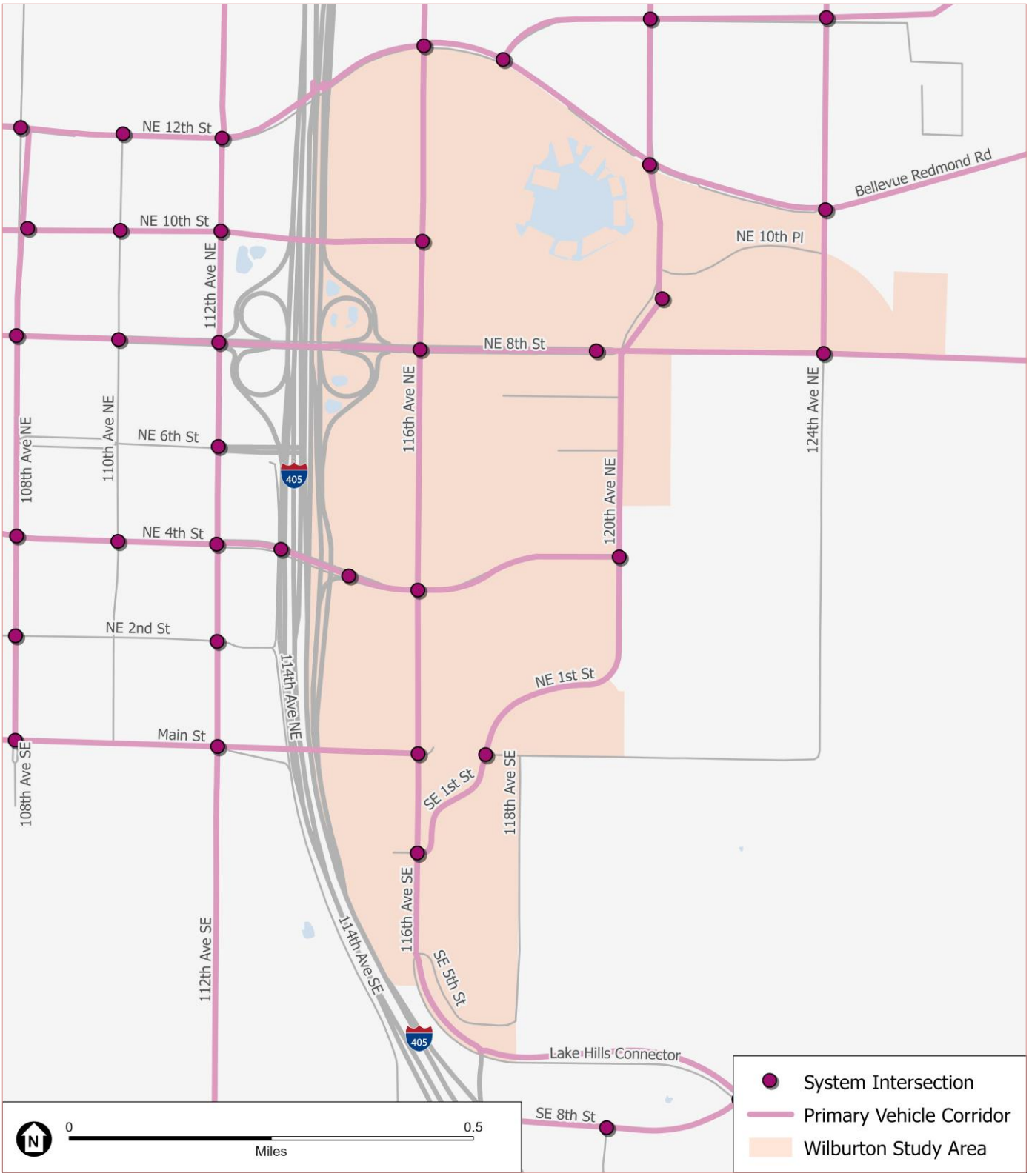
The local street network in the Wilburton study area, as shown in **Figure 11-21**, is made up of two-way streets that serve all travel modes. Arterial streets generally have a speed limit of 30 miles per hour (MPH), although 120th Avenue NE south of NE 8th Street and NE 1st Street have a speed limit of 25 MPH. All arterial intersections are signalized. Approximately half of the signals in the Wilburton study area are coordinated to improve traffic operations.

Currently all System Intersections in the Wilburton study area meet their performance target. Most Primary Vehicle Corridors in and connected to the Wilburton study area currently meet their performance target; the exception is NE 4th Street which connects to the Wilburton study area to Downtown across I-405.



SOURCE: City of Bellevue 2023

FIGURE 11-20 **Existing System Intersection Performance**



SOURCE: City of Bellevue 2023

FIGURE 11-21 **Existing Vehicle Network in the Wilburton Study Area Vicinity**

11.3.5 State Facilities

WSDOT owns and operates several state facilities through Bellevue. I-405 runs north-south through the city and SR 520 and I-90 run east-west through the city including bridges across Lake Washington to Seattle. WSDOT sets the LOS standard for I-405, SR 520, and I-90 through Bellevue at LOS D. The maximum service volume that allows those locations to operate at LOS D was calculated and compared to the existing AADT. **Table 11-9** shows that in the existing condition, two study segments along I-405 experience volumes that cause them to not meet the LOS D threshold: between SR 520 and I-90, and south of I-90.

TABLE 11-9 **Existing State Facility Performance**

Study Location	WSDOT LOS Standard	Existing AADT	Existing Volume-to-LOS D Maximum Service Volume Ratio
I-405 north of SR 520	D	211,000	0.99
I-405 between SR 520 and I-90	D	205,000	1.07
I-405 south of I-90	D	150,000	1.16
SR 520 west of I-405	D	74,000	0.57
SR 520 east of I-405	D	105,000	0.83
I-90 west of I-405	D	148,000	0.86
I-90 east of I-405	D	152,000	0.71

SOURCE: City of Bellevue 2023; Fehr & Peers 2023

11.3.6 Safety

Bellevue is committed to eliminating traffic deaths and serious injury collisions on city streets by 2030. In 2020, the City Council approved the Vision Zero Strategic Plan and the underlying Safe Systems approach by taking necessary steps to prevent future crashes. The Vision Zero Strategic Plan analyzes collision data from 2010 to 2019. Key takeaways from this analysis include:

- Between 2010 and 2019, the annual number of collisions in Bellevue decreased by 13 percent but the number of people killed or seriously injured (KSI) increased by 50 percent.
- KSI collisions occur among all road users but people walking and bicycling are much more likely to be victims in KSI collisions compared to people in cars.

- In Bellevue, 83 percent of KSI collisions occurred on 8 percent of the city's street network.

For this EIS, the latest collision data from WSDOT for the years 2017 through 2021 were analyzed. Key takeaways include:

- 17 percent of all pedestrian collisions resulted in a fatality or serious injury.
- There were six fatal collisions.
- The top five behaviors that contributed to KSI collisions were:
  - Driver distraction/inattention (21 percent)
  - Speeding (17 percent)
  - Following too closely (16 percent)
  - Failure to yield/did not grant right-of-way (14 percent)
- 31 percent of collisions occurred in wet road conditions

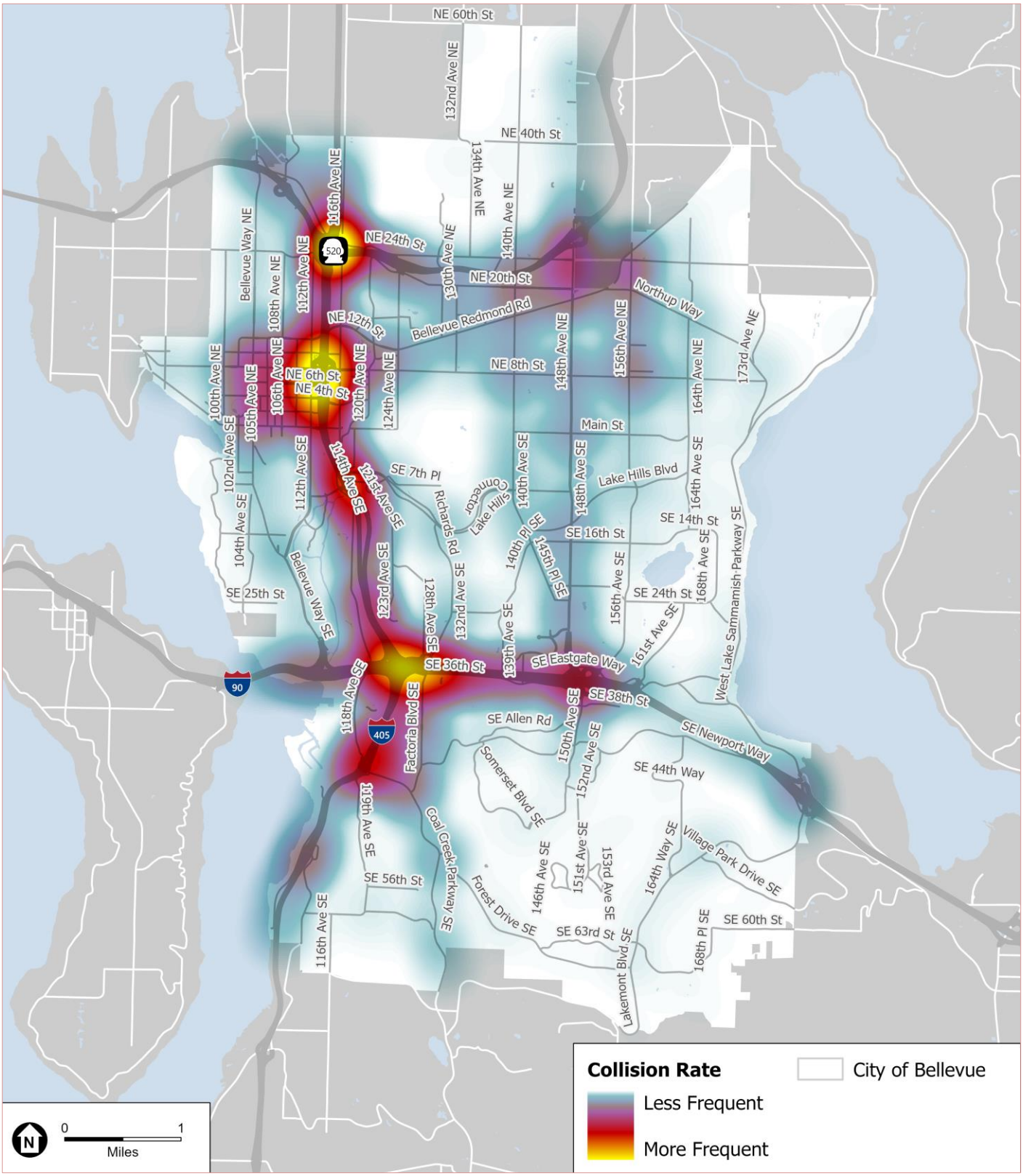
The collisions from 2017 to 2021 are represented in a heat map in **Figure 11-22**. As shown, collisions within the city most frequently occur on state facilities where traffic volumes are highest. In particular, collision hotspots occur at interchanges of I-405. Among city streets, Downtown and the area where Crossroads and BelRed meet experiences the most collisions.

11.3.7 On-Street Parking

Most arterials within Bellevue lack on-street parking. Within Downtown, Spring District, and BelRed, some arterials provide a small number of on-street parking spaces. **Figure 11-23** maps the available on-street public parking in Bellevue.

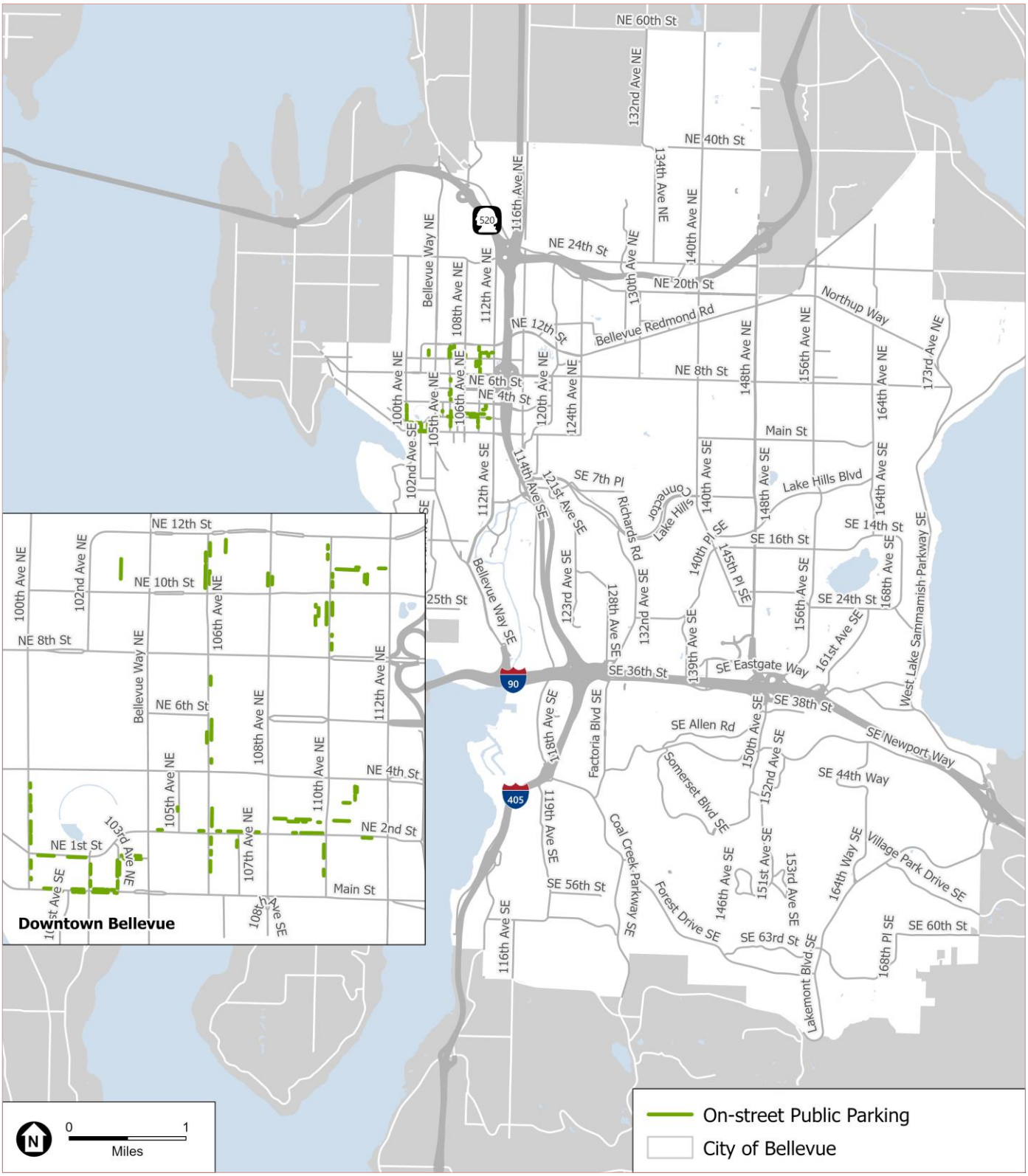
In June 2022, Bellevue performed a parking study during the morning (7:00 a.m. – 12:00 p.m.), mid-day (12:00 p.m. – 5:00 p.m.), and evening (5:00 p.m. – 9:00 p.m.) periods along all corridors with on-street parking. Most stretches of on-street parking spaces were observed to be 30 to 70 percent occupied.

Several areas experience high demand for parking, including Old Bellevue, Southwest Downtown, and Southeast Downtown, where more than 75 percent of the parking spaces are occupied during the evening hours. Over 85 percent of available on-street parking spaces are occupied during the morning hours in the Spring District and BelRed.



SOURCE: City of Bellevue 2023

FIGURE 11-22 **Collision Heat Map, 2017–2021**



SOURCE: City of Bellevue 2023

FIGURE 11-23 **Existing On-Street Parking**

11.4 Regulatory Context

This section describes plans and policies relevant to management of Bellevue's transportation system.

11.4.1 Relevant Plans and Policies

GROWTH MANAGEMENT ACT

The Growth Management Act (GMA), passed by the Washington State Legislature in 1990, requires jurisdictions to include a Transportation Element in their Comprehensive Plans. The Transportation Element must define a LOS standard to be used for long-term planning purposes to evaluate locally owned arterials and transit routes. The GMA also requires transportation concurrency, a regulatory process to ensure that development be permitted only if transportation improvements are implemented concurrent with development such that LOS meets the adopted standard.

BELLEVUE MIP

In 2022, the City Council adopted the Bellevue MIP, a new performance measurement and prioritization system that aligns transportation investments with the city's vision for growth, providing a platform for Bellevue to meet the multimodal future envisioned in this Comprehensive Plan Update. The MIP is used in conjunction with the city's codes, standards, regulations, the Multimodal Concurrency Code, Transportation Design Manual requirements, Transportation Facilities Plan, and Transportation Impact Fee Program to ensure that the performance and capacity of the city's transportation system accommodate expected growth.

An important element of the MIP is its approach to transportation concurrency. The MIP expands the former "vehicle level-of-service" standard—based solely on vehicle capacity at specified intersections—to include other transportation modes. This new multimodal approach considers additional modes of travel—such as transit, bicycling and walking—along with vehicles, to determine transportation concurrency.

Multimodal concurrency is meant to ensure the "supply" of mobility provided for all modes of transportation infrastructure is adequate to support the forecast "demand" for mobility spurred by new development. The multimodal approach provides a more equitable, sustainable way to identify, prioritize, and fund transportation system projects.

BELLEVUE VISION ZERO

Bellevue's Vision Zero initiative aims to eliminate traffic deaths and serious injury collisions on city streets by 2030 by adopting a Systems Approach to studying collisions. Founded on the belief that death and serious injuries on city streets are preventable, not accidents, the Safe Systems approach considers the design, infrastructure, and systemic issues behind crashes.

EASTRAIL

Eastrail is a planned 42-mile regional trail corridor connecting Renton, Bellevue, Kirkland, Woodinville, Redmond, and Snohomish. The trail will link commercial districts, neighborhoods, employment, and transit along with major individual trails crossing the region. It runs through the heart of the Wilburton study area connecting residents and businesses with the wider Eastside.

SOUND TRANSIT PLANS

The Sound Transit 2 East Link Extension is a 14-mile extension that will provide Link light rail service between Downtown Seattle and the Overlake Transit Center. Six new stations will be constructed within Bellevue, including South Bellevue, East Main, Downtown, Wilburton, Spring District/120th, and Bel-Red/130th.

Sound Transit 3 includes two new bus rapid transit (BRT) lines along I-405 that meet at the Bellevue Transit Center. The Stride S1 line will travel between Lynnwood and Bellevue and the Stride S2 line will travel between Burien and Bellevue. With the addition of Link light rail and Stride BRT, the Bellevue Transit Center will be a major transit hub for the Puget Sound region.

I-405 CORRIDOR PROGRAM

I-405 is the focus of numerous ambitious planning projects. The state created a master plan to evaluate and coordinate more than 150 projects to reduce delay and improve multimodal trips along the length of the interstate. Major projects include adding express toll lanes in both directions, supporting regional transit services through new and improved interchanges, increasing park-and-ride (P&R) capacity, and creating eight new pedestrian and bicycle crossings over I-405.

11.5 Potential Impacts

This section describes the four planning alternatives that were evaluated: No Action and Action Alternatives 1, 2, and 3. It also describes the thresholds of significance used to determine impacts with each alternative, the methodology used to evaluate the future year analyses, and the resulting potential impacts for each scenario.

11.5.1 Planning Alternatives Evaluated

All growth numbers cited below are relative to 2019 land uses. While the horizon year for the analysis is 2044, this EIS analyzes growth to "build-out" capacity. In other words, under all alternatives this EIS takes a conservative approach with respect to "build-out" as it is not expected that this level of growth would all occur by 2044.

- **Alternative 0 (No Action)**[1] – This alternative would continue Bellevue's current land use growth plans which concentrate growth in the Downtown, BelRed, and East Main areas. The No Action Alternative has capacity for 41,000 additional housing units and space for an additional 124,000 jobs. This analysis assumes that the existing capacity is built out. Under the No Action Alternative, transportation investments as identified in the Transportation Facilities Plan (2022–2033) are assumed to be in place; this includes the NE 6th Street extension between I-405 and 116th Avenue NE in the Wilburton study area.
- **Alternative 1** – This alternative would focus growth beyond the urban core in all Bellevue's Mixed Use Centers. Alternative 1 has build-out capacity for 59,000 additional housing units and space for an additional 179,000 jobs. This includes 9,200 housing units and 44,800 jobs in the Wilburton study area. This analysis assumes that the capacity is built out. In addition to the transportation investments assumed under the No Action Alternative, Alternative 1 also assumes new multimodal connections in the Wilburton study area.
- **Alternative 2** – This alternative would focus growth into Bellevue's Mixed Use Centers as well as other areas with good access to transit (meaning bus service with 15-minute frequencies or better during the daytime and early evening). Alternative 2 has build-out capacity for 77,000 additional housing

[1] Housing and job capacity used in this EIS analysis is higher under the No Action Alternative than the capacity that was reported in King County's 2021 Urban Growth Capacity Report. See Chapter 2 and Chapter 4 Plans and Policies for a discussion of why these numbers are different.

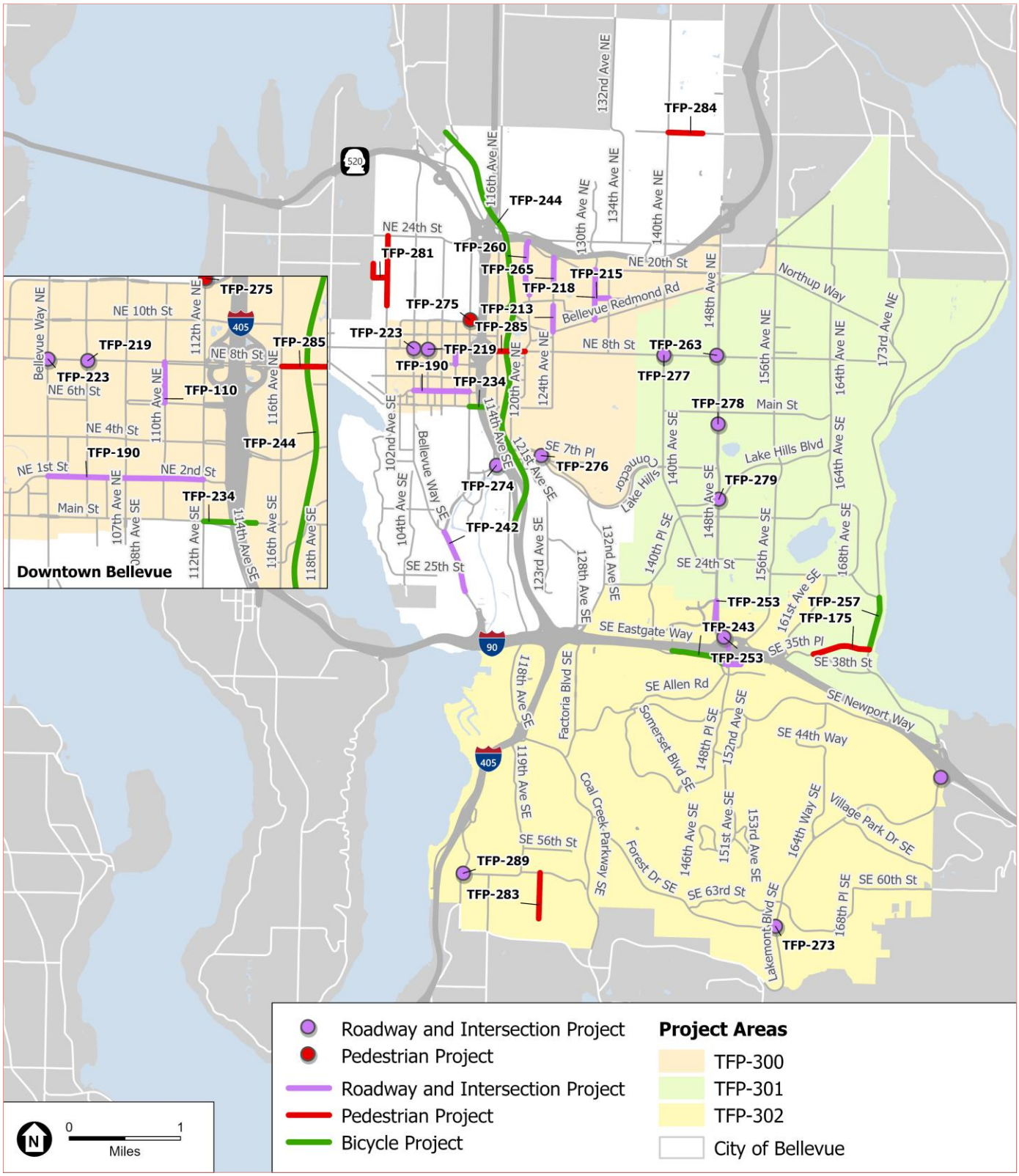
units and space for an additional 177,000 jobs. This includes 14,200 housing units and 38,100 jobs in the Wilburton study area. This analysis assumes that the capacity is built out. In addition to the transportation investments assumed under the No Action Alternative, Alternative 2 also assumes new multimodal connections in the Wilburton study area.

- **Alternative 3** – This alternative further expands land use growth to include Mixed Use Centers, areas with good access to transit, and areas close to Neighborhood Centers. Alternative 3 assumes the highest levels of growth with build-out capacity for 95,000 additional housing units and space for an additional 200,000 jobs. This includes 14,300 housing units and 44,500 jobs in the Wilburton study area. This analysis assumes that the capacity is built out. As with Alternatives 1 and 2, Alternative 3 includes the No Action Alternative transportation investments and new multimodal connections in the Wilburton study area. Alternative 3 is studied with two transportation networks with respect to the NE 6th Street extension: one scenario with the extension only to 116th Avenue NE, and one scenario with the extension to 120th Avenue NE with at-grade intersections at 116th Avenue NE and at the Eastrail crossing.

TRANSPORTATION NETWORK ASSUMPTIONS

As described above, the alternatives assume a set of new transportation investments as adopted in the 2022–2033 Transportation Facilities Plan (TFP). These projects are mapped in **Figure 11-24** and the full TFP project list is included in Appendix C. The TFP is updated every two to three years, so updated versions will be adopted and additional transportation network projects may be implemented in advance of the 2044 horizon year. Specific projects are unknown at this time and so for the purposes of this EIS analysis, the financially constrained 2022–2033 TFP is used as the assumption for reasonably foreseeable transportation projects.

The modeling also assumes an extension of NE 6th Street for HOV, transit, and non-motorized modes of travel across I-405 to 116th Avenue NE under the No Action Alternative and Alternatives 1, 2, and 3. Under Alternative 3A, the NE 6th Street extension would go to 120th Avenue NE. The new southbound on-ramp to I-405 from Lake Hills Connector (a concept developed as part of the South Downtown I-405 Access Study) is also assumed in all future year alternatives.



SOURCE: City of Bellevue 2023

FIGURE 11-24 **2022–2033 Transportation Facilities Planned Projects**

By the 2044 horizon year, the Frequent Transit Network will include the East Link light rail extension as well as the South Kirkland to Issaquah extension (which would serve the Wilburton, Downtown, and East Main stations opening with East Link as well as new stations at Richards Road and Eastgate). Other transit agency projects such as King County Metro RapidRide and bus route restructuring to complement the light rail extensions will also be in place though details of that restructuring are not yet finalized. **Figure 11-25** shows the future Frequent Transit Network based on the METRO CONNECTS 2050 long-range plan and Sound Transit's planned system expansion.

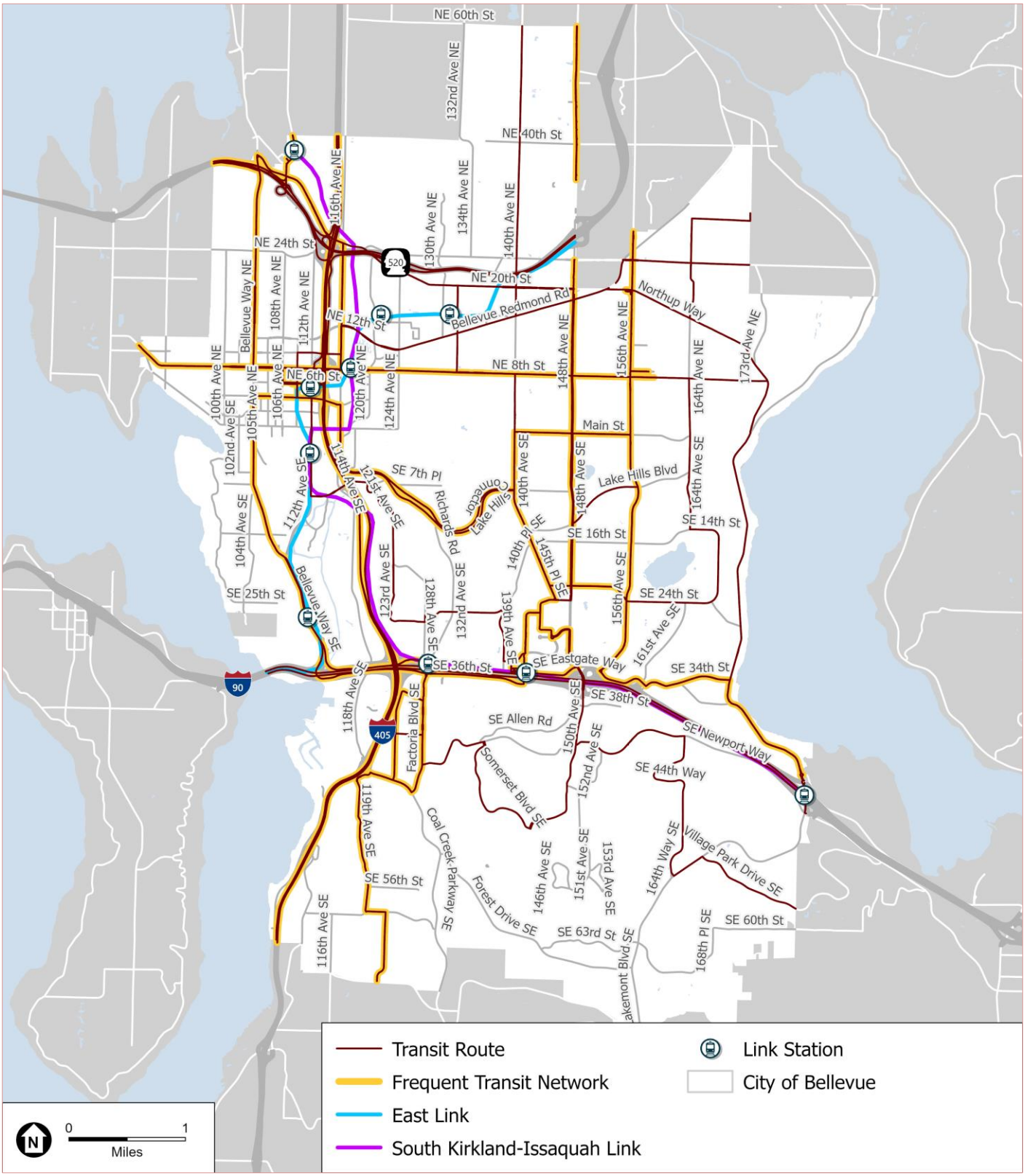
TRAVEL DEMAND FORECASTING MODEL

Bellevue maintains a regional travel demand model called BKRCast which is based on the Puget Sound Regional Council (PSRC) SoundCast model but with additional local detail in the Bellevue-Kirkland-Redmond area. BKRCast is used to predict how travel behavior will change based on land use and transportation network inputs. The model is a tool best used to compare the relative differences among alternatives rather than a precise prediction of future travel behavior. In other words, the model indicates which alternatives are likely to be more impactful than others, though the exact locations and magnitude of future impacts cannot be forecasted with certainty, particularly in this programmatic EIS where specific development projects are unknown.

The model is an activity-based model which means it simulates individual travel patterns over the course of a day based on travel survey data, demographic information, land use inputs, and travel options. The model has been calibrated and validated for use in Bellevue.

Key features of the model include:

- **Analysis Years:** The BKRCast model has a base year of 2019 and a horizon year of 2044. Note that the build-out of the growth alternatives would occur beyond this 20-year planning horizon.
- **Land Use**: Land use forecasts (representing full build-out) were developed for each of the alternatives using a geographic unit called a Traffic Analysis Zone. The model also includes land use assumptions for the rest of the region based on PSRC growth targets.



SOURCE: City of Bellevue 2023

FIGURE 11-25 **Future Frequent Transit Network**

- **Network Representation**: All major corridors and state facilities are represented in the BKRCast allowing volume and travel time forecasts for the Primary Vehicle Corridors and System Intersections defined in the MIP.
- **Transit:** The base year model assumes transit service currently in place while the 2044 model assumes reasonably foreseeable projects such as continued expansion of the Link light rail system and other transit agency projects such as King County Metro RapidRide.
- **Travel Costs:** Consistent with PSRC guidance, BKRCast assumes that regional congestion pricing will be in place.
- **Travel Demand:** The model predicts travel demand for the following modes of travel: drive alone, single occupancy vehicle, high occupancy vehicle, truck, transit, bicycle, and walk. Travel demand is estimated for four time periods: AM peak, midday, PM peak, and night. This EIS analysis focuses on the PM peak hour, which has the highest number of people traveling.

11.5.2 Thresholds of Significance

The Action Alternatives are assessed against the No Action condition to evaluate the magnitude of potential impacts. To determine whether an impact is considered significant, this EIS first defines the impact in the context of the No Action Alternative and then uses the following thresholds which were developed based on the performance metrics and targets established in the MIP.

An impact is generally defined and measured in the context of the No Action Alternative if the No Action Alternative would result in any of the following:

- Reduction in the degree of system completeness (as defined by the MIP performance targets) for any of the following:
  - Arterial sidewalks
  - Spacing of arterial crossings
  - Bicycle network corridors
  - Frequent Transit Network stop amenities
- Transit travel time ratio of greater than 2.0 for Activity Center pairs identified in the MIP.
- System Intersection V/C ratio that does not meet the performance target identified per PMA in the MIP.

- Primary Vehicle Corridor travel speed that does not meet the performance target identified per PMA in the MIP.
- State facility in Bellevue that does not meet its WSDOT LOS standard.

A variety of factors that may influence future parking and safety effects under the No Action Alternative are discussed qualitatively.

An impact is defined as significant if an Action Alternative (Alternatives 1, 2, and 3) would result in any of the following:

- Degradation in the degree of system completeness (as defined by the MIP performance targets) relative to the No Action Alternative for any of the following:
  - Arterial sidewalks
  - Spacing of arterial crossings
  - Bicycle network corridors
  - Frequent Transit Network stop amenities
- An increase in the transit travel time ratio beyond 2.0 for Activity Center pairs that met the MIP performance target under No Action; an increase in the travel time ratio by 0.1 or more for any Activity Center pair that did not meet the MIP performance target under No Action.
- An increase in a System Intersection V/C beyond the performance target identified in the MIP; for an intersection that already does not meet the performance target, an increase in the V/C ratio by 0.05 or more over No Action.
- A reduction in the Primary Vehicle Corridor speed below the performance target identified in the MIP; for a corridor that already does not meet the performance target, a reduction in the travel speed/Typical Urban Travel Speed ratio by 0.05 or more below No Action.
- A state facility in Bellevue not meeting its WSDOT LOS standard for a facility that met the LOS standard under No Action; an increase in state facility V/C ratio of 0.01 or more for a state facility that did not meet the LOS standard under No Action.
- VMT per capita increase of at least 1 percent over the No Action Alternative.

Potential parking and safety impacts relative to the No Action Alternative are discussed qualitatively and consider the following factors:

- Whether an Action Alternative would result in parking demand that exceeds supply by a noticeable magnitude relative to the No Action Alternative.
- Whether an Action Alternative would increase the likelihood of additional severe or fatal crashes within the City of Bellevue compared to the No Action Alternative (considerations include the pace of safety infrastructure investment, the relative change in modal conflicts, and vehicle speeds).

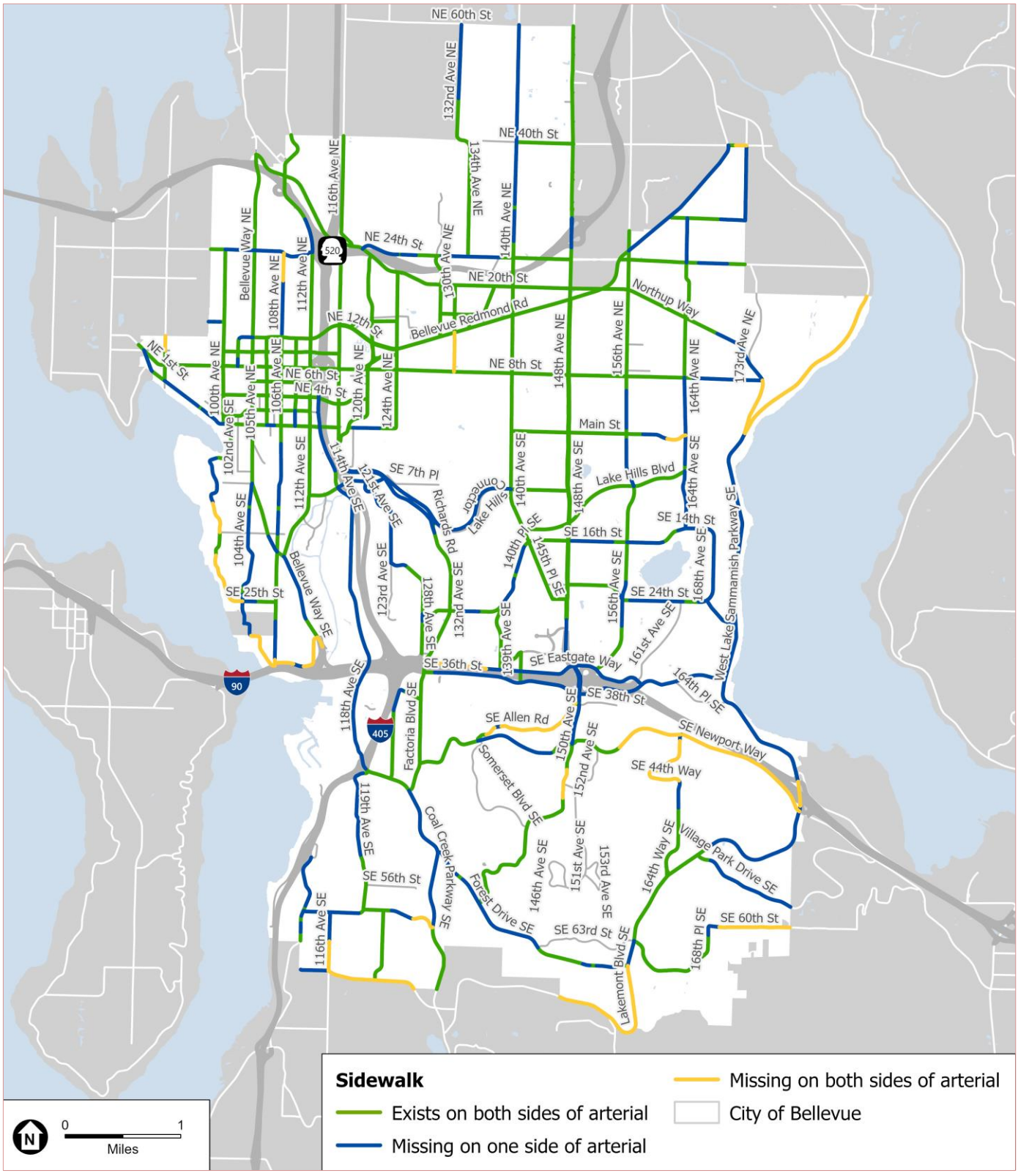
11.5.3 Impacts Common to All Alternatives

The following section summarizes the performance evaluation completed for projected future conditions. These are the conditions of the transportation system that would be affected in a similar way by all alternatives. By evaluating expected future conditions, city staff, the Bellevue Transportation Commission, and the community can better understand the implications of how land use growth and planned transportation investments will affect travel patterns and the performance of the transportation system.

PEDESTRIAN NETWORK – SYSTEM COMPLETENESS

Bellevue's pedestrian network is made up of sidewalks along arterials and neighborhood streets as well as trails. For the purposes of this EIS (and consistent with the MIP), pedestrian network performance is quantitatively analyzed for a subset of that network along the arterial roadway system. Bellevue intends to achieve an arterial pedestrian network completeness performance target of 100 percent in the future, with complete and connected sidewalks on both sides of every arterial.

Based on the projects planned to be implemented through the most recently adopted Transportation Facilities Plan, **Figure 11-26** displays the future pedestrian arterial network and locations where gaps would remain. In addition to the projects defined in the TFP, other sidewalk and mid-block crossing projects along with private sector projects will contribute to system completeness. In other words, the analysis described here represents the minimum level of new facilities expected to be constructed by the horizon year of this EIS.



SOURCE: City of Bellevue 2023

FIGURE 11-26 **Pedestrian Network Performance – All Alternatives**

As shown in **Table 11-10**, Bellevue's planned projects would continue to progress toward completing the pedestrian network. The improvements noted here reflect only the projects planned for in the TFP and do not account for privately funded frontage improvements, such as sidewalks, that are required with development. This includes adding sidewalks along 5 miles of the arterial network that are currently classified as gaps. The improvements would bring the portion of the arterial pedestrian network with a sidewalk on both sides from 56 to 59 percent, increase the proportion with a sidewalk one side from 32 to 33 percent, and decrease the proportion of the arterial network with no sidewalk from 12 to 8 percent.

TABLE 11-10 **Pedestrian Network Performance Target Results – All Alternatives**

Citywide		Sidewalk on Both Sides		Sidewalk on One Side		Sidewalk Gaps	
		Existing	Future	Existing	Future	Existing	Future
Miles		77	82	45	45	17	12
Proportion of Total		56%	59%	32%	33%	12%	8%
PMA		**Sidewalk on Both Sides**		**Sidewalk on One Side**		**Sidewalk Gaps**	
		Existing	**Future**	**Existing**	**Future**	**Existing**	**Future**
Type 1	Downtown	95%	95%	5%	5%	0%	0%
	BelRed	86%	98%	8%	1%	6%	1%
	Wilburton-East Main	56%	59%	41%	41%	3%	0%
Type 2	Crossroads	100%	100%	0%	0%	0%	0%
	Eastgate	29%	29%	63%	65%	8%	6%
	Factoria	70%	70%	28%	28%	3%	3%
Type 3 Residential		47%	50%	37%	39%	16%	12%

SOURCE: Fehr & Peers 2023

The biggest change in sidewalk completion would be in the BelRed PMA, which would have a sidewalk on both sides of 98 percent of the arterial network with implementation of the 2022–2033 TFP. The Wilburton-East Main PMA and the Type 3 Residential PMA would also see noticeable increases in the percentage of system completion. As is the case today, system completion in the Type 3 Residential PMA would lag behind the Type 1 and Type 2 PMAs.

Because the No Action Alternative would increase the degree of system completeness for arterial sidewalks, there is no significant impact. Likewise, the Action Alternatives are expected to not just maintain but increase the level of system completeness because the additional increment of growth would result in more locations with frontage improvements. Similar to sidewalk improvements, more arterial crossings are expected to be implemented over the course of the planning period. Therefore, none of the Action Alternatives are expected to result in any reduction of system completeness with regard to arterial crossing spacing. Therefore, no significant impacts on the pedestrian network are identified under any of the Action Alternatives.

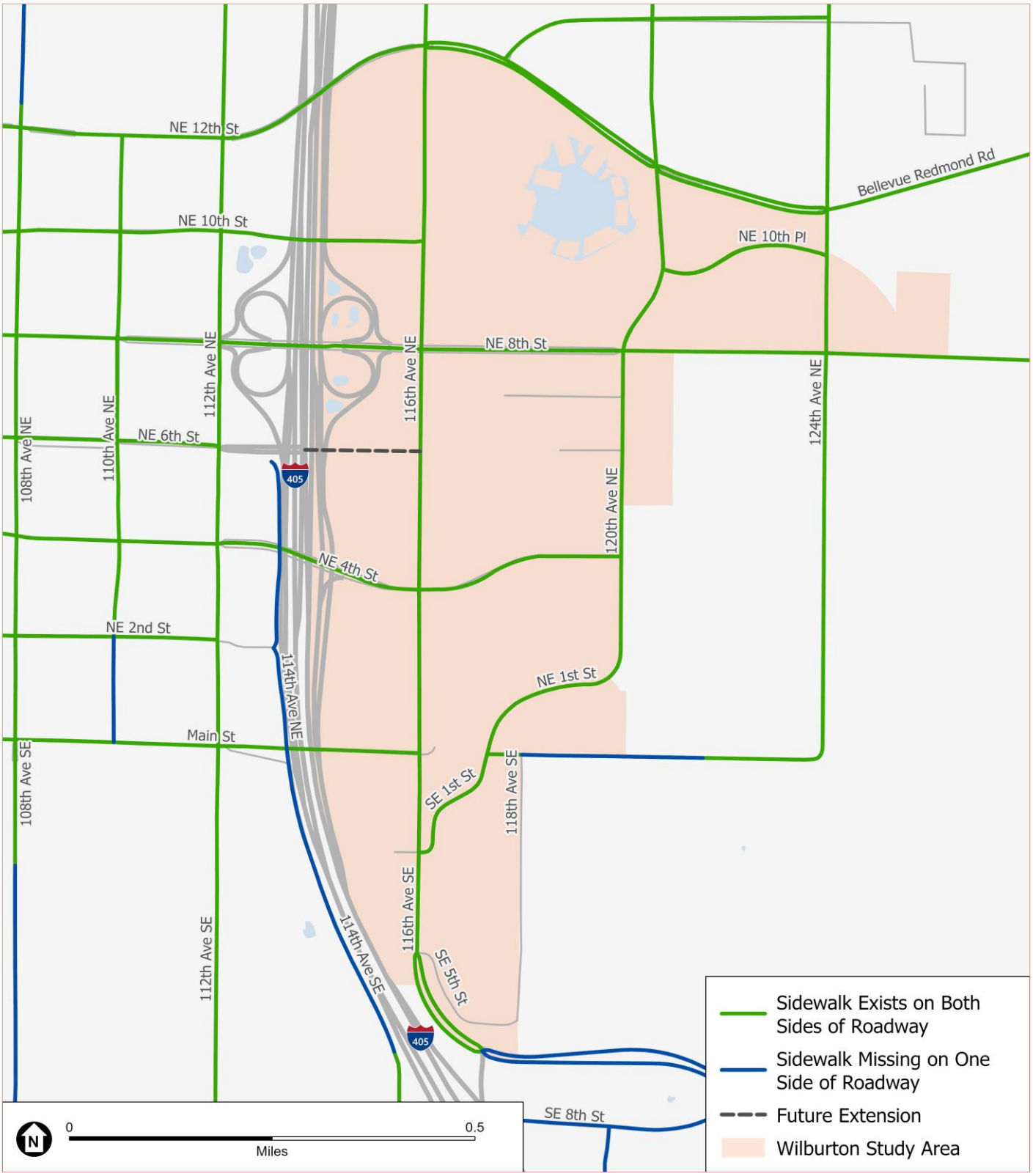
A geographic information system (GIS) analysis of the alternatives compares the proportion of households and jobs within ¼ mile of pedestrian facilities. This includes any pedestrian facilities, whether they were on the arterial network or local network. Findings indicated that 99.3 to 99.5 percent of households and 99.5 to 100 percent of jobs would be within ¼ mile of pedestrian facilities for all alternatives. In other words, the alternatives do not substantively vary in terms of concentrating residents and workers in close proximity to the pedestrian network.

Wilburton Study Area

With implementation of the 2022–2033 TFP, most of the arterial network in the Wilburton study area will have a sidewalk on both sides of the arterial network (note this is a different geography than the Wilburton-East Main PMA). As noted in the citywide discussion, there may be other sidewalk and mid-block crossing projects beyond those defined in the TFP along with private sector projects that will contribute to system completeness. Therefore, this analysis represents the minimum level of new facilities expected to be constructed by the horizon year of this EIS.

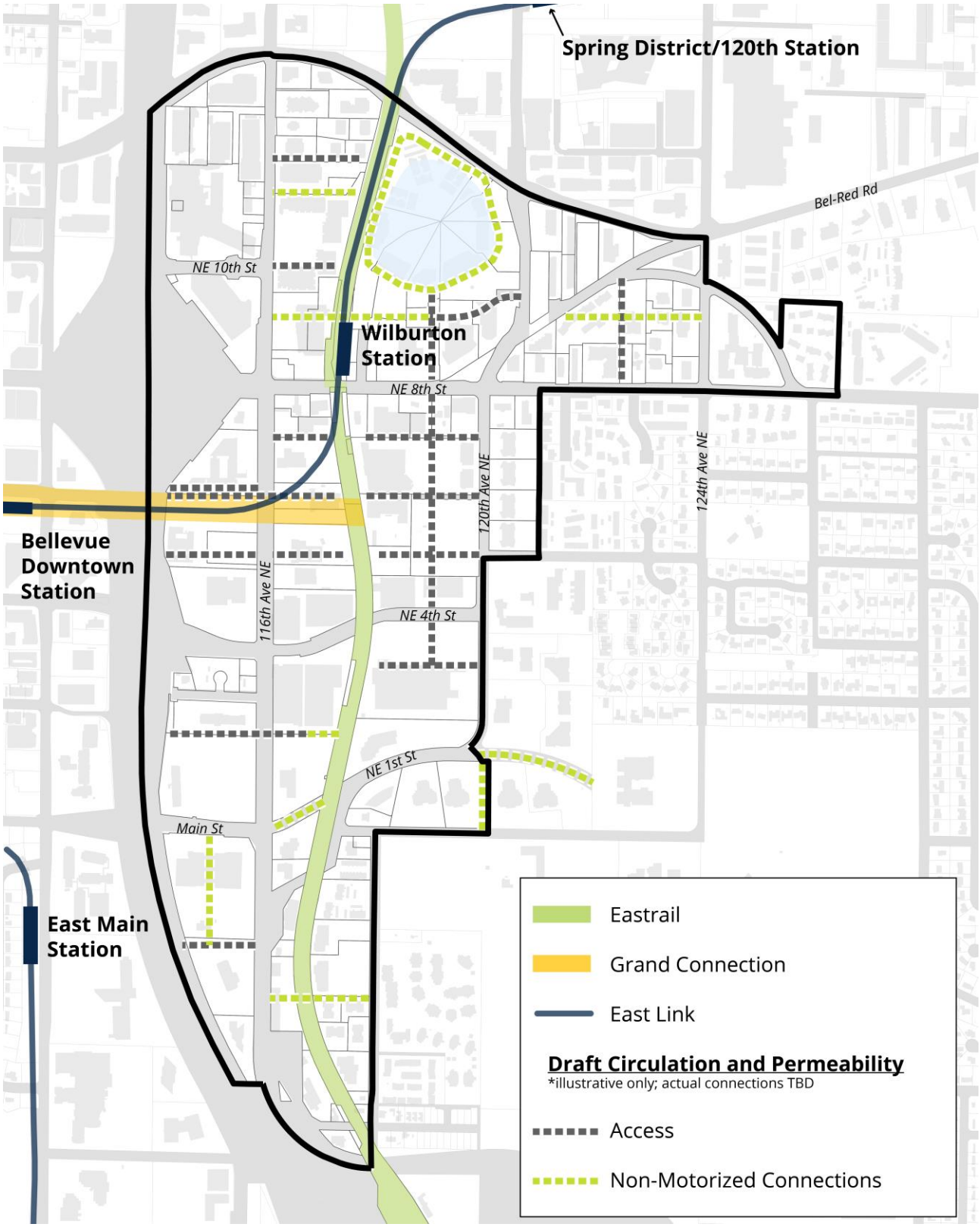
As seen in **Figure 11-27**, the only missing segment is on Main Street east of 118th Avenue SE where the roadway has sidewalk only on one side. Because the No Action Alternative would not reduce the system completeness for arterial sidewalks, there is no significant impact.

The Action Alternatives assume there would be additional multimodal connections in the Wilburton study area; a conceptual diagram showing potential connections is shown in **Figure 11-28**. Therefore, the pedestrian network may have additional connections beyond those provided under the No Action Alternative providing a



SOURCE: City of Bellevue 2023

FIGURE 11-27 **Pedestrian Network Performance in the Wilburton Study Area – All Alternatives**



SOURCE: City of Bellevue 2023

FIGURE 11-28 **Wilburton Study Area Draft Circulation and Permeability**

benefit to the area (though they would not count toward the MIP system completeness metric). Therefore, no adverse impact on the Wilburton study area pedestrian network is identified under the Action Alternatives.

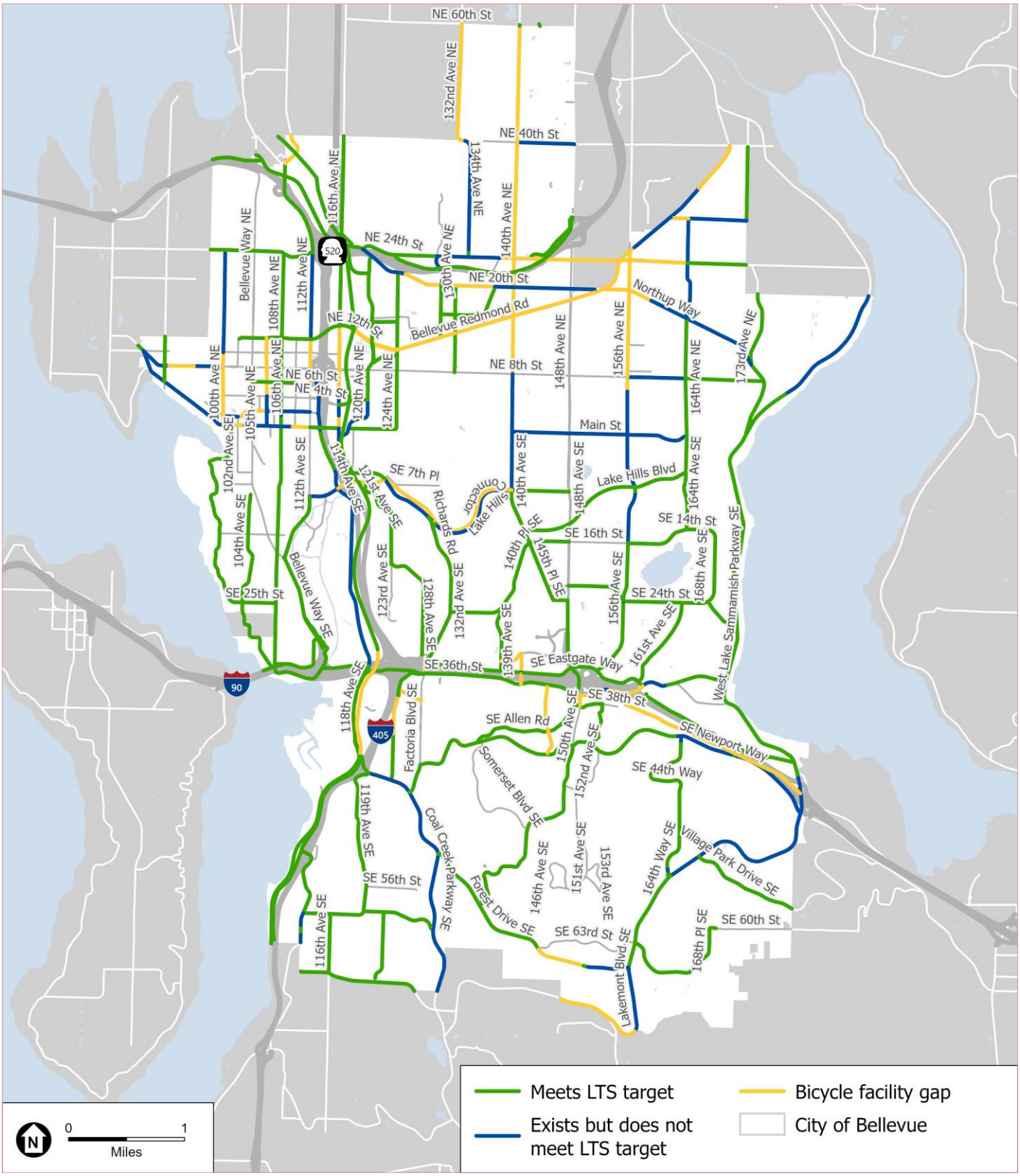
BICYCLE NETWORK – SYSTEM COMPLETENESS

Bellevue is targeting completion of bicycle facilities to meet the intended LTS of the bicycle network as defined in the MIP. Based on the projects planned to be implemented through the most recently adopted TFP, **Figure 11-29** displays the performance of the future bicycle network and locations where there would still be gaps in the network.[2] In addition to the projects defined in the TFP, other bicycle facility projects will contribute to system completeness. In other words, the analysis described here represents the minimum level of new facilities expected to be constructed by the horizon year of this EIS.

As shown in **Table 11-11**, the proportion of the bicycle network meeting the intended LTS target is projected to increase from 54 to 62 percent, the proportion of the network with a facility that does not meet the intended LTS target is projected to decrease from 25 to 21 percent, and the proportion of the network with a facility gap would decrease from 22 to 17 percent.

Because the No Action Alternative would increase the degree of system completeness for the bicycle network, there is no significant impact. Likewise, the Action Alternatives are expected to not just maintain but will likely increase the level of system completeness because the additional increment of growth would result in more locations with frontage improvements. Therefore, neither the No Action Alternative nor the Action Alternatives are expected to reduce the degree of system completeness of the bicycle network so no significant impacts are identified under any of the future year alternatives.

[2] The future year evaluation considers whether a change to the type of bicycle facility on a given roadway would change the LTS. It does not account for potential increases in traffic volumes (which would have a negative effect on LTS) as they would also be associated with decreases in travel speed (which would have a positive effect on LTS).



SOURCE: City of Bellevue 2023

FIGURE 11-29 **Bicycle Network Performance – All Alternatives**

TABLE 11-11 **Bicycle Network Performance Target Results – All Alternatives**

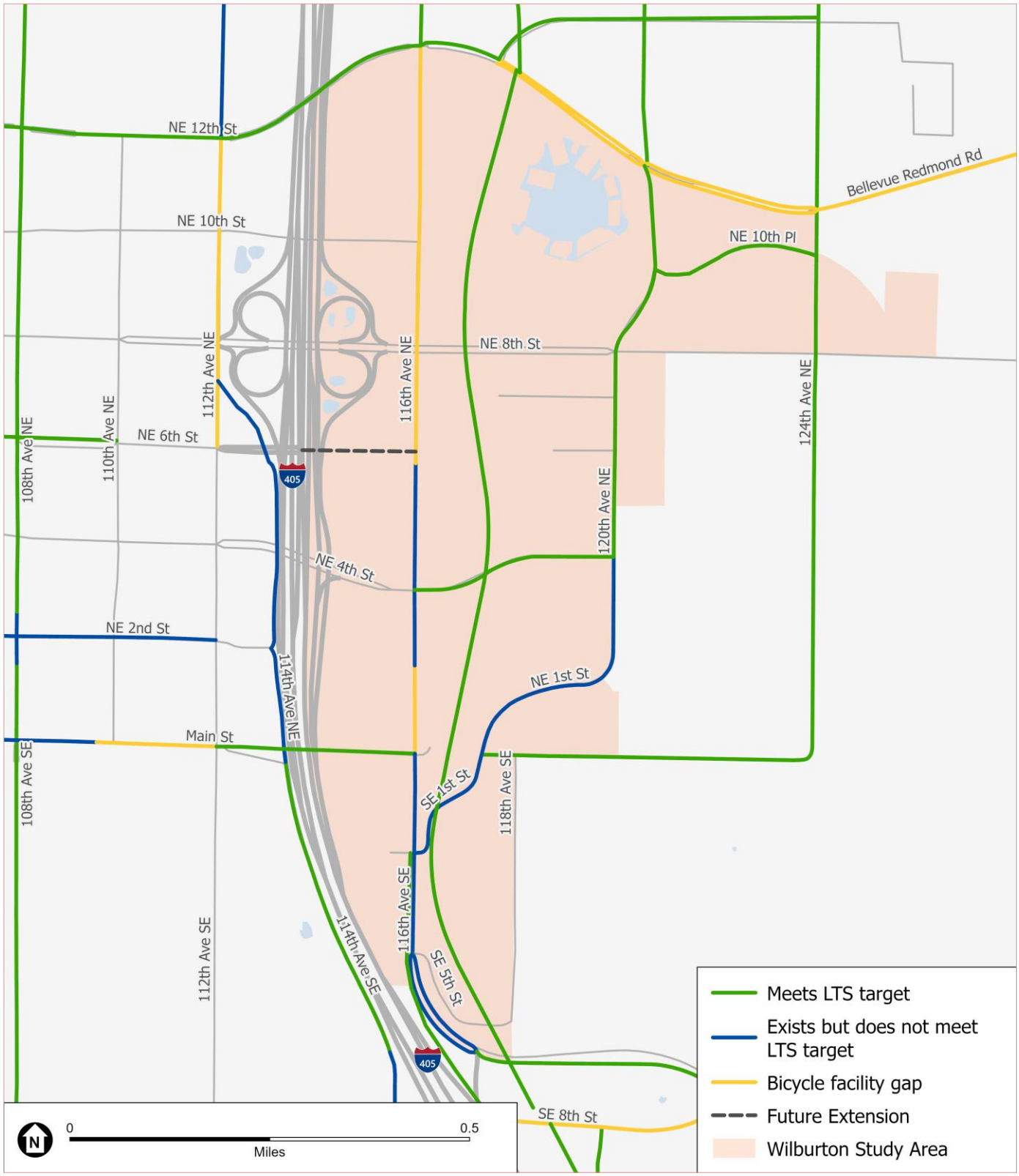
Citywide		Facility Meets LTS		Facility Does Not Meet LTS		Facility Gaps	
		Existing	Future	Existing	Future	Existing	Future
Miles		74	86	34	29	30	24
Proportion of Total		54%	62%	25%	21%	22%	17%
Performance Management Area		**Facility Meets LTS**		**Facility Does Not Meet LTS**		**Facility Gaps**	
		Existing	Future	Existing	Future	Existing	Future
Type 1 PMA	Downtown	28%	34%	32%	33%	39%	33%
	BelRed	37%	48%	8%	9%	56%	44%
	Wilburton-East Main	25%	47%	39%	37%	36%	17%
Type 2 PMA	Crossroads	25%	25%	35%	35%	40%	40%
	Eastgate	72%	81%	12%	5%	16%	14%
	Factoria	61%	64%	26%	23%	13%	13%
Type 3 Residential PMA		60%	67%	26%	22%	14%	12%

SOURCE: Fehr & Peers 2023

A GIS analysis of the alternatives was conducted to compare the proportion of households and jobs with ¼ mile of bicycle facilities. This included any type of bicycle facility regardless of whether it met its intended LTS. Findings indicated that 94 to 95 percent of households and 98.8 to 99.3 percent of jobs would be within ¼ mile of bicycle facilities for all alternatives. Therefore, there is little variation among the alternatives in terms of concentrating residents and workers in close proximity to the bicycle network.

Wilburton Study Area

In all alternatives, the bicycle network in the Wilburton study area would become more complete. **Figure 11-30** presents the future bicycle network, including the new segments that would meet the LTS target for the area. In particular, the Eastrail multipurpose path would be complete. Improvements are also planned along 116th Avenue NE and SE 1st Street. As the bicycle network would be improved under the No Action Alternative, there would be no adverse impact on the Wilburton study area bicycle network.



SOURCE: City of Bellevue 2023

FIGURE 11-30 **Bicycle Network Performance in the Wilburton Study Area – All Alternatives**

All three Action Alternatives include additional multimodal connections in the Wilburton study area. Therefore, the bicycle network may have additional connections beyond those provided under the No Action Alternative providing a benefit to the area. Therefore, there is no adverse impact on the Wilburton study area bicycle network under the Action Alternatives.

TRANSIT NETWORK – SYSTEM COMPLETENESS

Bellevue and its transit agency partners will continue to increase the number of transit stop amenities across the city regardless of which alternative is selected. Moreover, the East Link light rail will add new transit stations with the passenger amenities defined in the MIP. Because the No Action Alternative would increase the degree of system completeness for the transit network, there is no significant impact.

Likewise, the Action Alternatives would not just maintain but potentially increase the level of system completeness because the additional increment of growth would result in more locations with frontage improvements. Therefore, none of the Action Alternatives would result in any reduction of the degree of system completeness of transit stop amenities. Therefore, no significant impacts on the transit network are identified under any of the Action Alternatives.

SAFETY

By the 2044 horizon year of this EIS analysis, Bellevue will have been investing in transportation safety improvements for several decades through the lens of the Vision Zero Strategic Plan. Based on these investments, the design and operations of the transportation system is expected to be fundamentally safer than existing conditions.

However, even with a transportation system that is safer in design and operations, all alternatives accommodate more residents, employees, and visitors across the entire city and within the Wilburton study area. With more people, there is more opportunity for people to become involved in crashes. Higher shares of people walking and bicycling also puts people at greater risk of being injured or killed if they are involved in a crash. Therefore, the overall number of severe and fatal injury crashes could increase for all alternatives compared to existing conditions.

When assessing potential safety impacts of the Action Alternatives, the following threshold is applied:

- Whether an Action Alternative would increase the likelihood of additional severe or fatal crashes within the City of Bellevue compared to the No Action Alternative

While the total number of severe or fatal crashes could be higher with the Action Alternatives compared to the No Action Alternative (because they accommodate more residents and employees), there is no reason to assume that the likelihood of severe or fatal crashes would increase with the Action Alternatives. This is because the Action Alternatives provide opportunity for Bellevue to implement more safety improvements through a mix of frontage improvements built as part of new development, impact fee funded projects that include safety elements, and new safety-oriented capital projects funded through the city's larger tax base. Therefore, no significant safety impacts are expected as a result of any of the alternatives either citywide or for the Wilburton study area.

PARKING

As Bellevue grows under all the alternatives, new development will build off-street parking in accordance with the Land Use Code and the city will continue to manage on-street parking through its curbspace management programs. The city will use this combination of off-street, developer-provided parking and on-street management to strive for a balance between parking demand and supply for any of the alternatives.

As is the case today, changes in development patterns and the type of land uses occupying buildings could result in short-term instances where vehicles park in areas where they are not allowed or where they impact other modes or curb users. However, the existing methods that private parking lot owners and the city have to manage inappropriate parking will address parking impacts over time. Therefore, no significant parking impacts are expected as a result of any of the alternatives citywide or for the Wilburton study area.

11.5.4 Alternative 0 (No Action)

The No Action Alternative represents the transportation conditions that can be expected if no changes are made to currently adopted policies. Therefore, this alternative acts as the baseline against which potential impacts of the Action Alternatives are evaluated. This section summarizes analysis results and identifies potential transportation impacts that are expected under the No Action Alternative, as growth will continue even under currently adopted policies.

MODE SHARE

Mode share refers to the proportion of trips that are taken by each mode of travel: walking, bicycling, SOV, HOV, and transit. Mode share for trips originating from or destined to Bellevue is presented in **Table 11-12** and is broken out by Bellevue workers and Bellevue residents. The table compares existing and future year data to indicate how travel behavior is projected to change over the next two decades. In particular, the shares of trips made by walking and transit are expected to increase while the shares of people driving are expected to decrease. In particular, the transit mode share for workers is projected to more than triple from 9 to 32 percent with the addition of light rail and BRT travel options. Considering SOV and HOV trips together, the share of trips made by driving is expected to decrease by 25 percentage points for Bellevue workers and by 10 percentage points for Bellevue residents.

TABLE 11-12 **Mode Share – No Action Alternative**

Mode	Bellevue Workers		Bellevue Residents	
	Existing	No Action	Existing	No Action
Walk	6%	7%	14%	19%
Bicycle	0%	0%	1%	1%
SOV	60%	41%	33%	29%
HOV	25%	19%	46%	40%
Transit	9%	32%	7%	12%

SOURCE: City of Bellevue 2023

NOTE: Mode shares are rounded and may not sum to 100%.

VMT PER CAPITA

As shown in **Table 11-13**, the percentage of total VMT each day by Bellevue residents and workers is expected to increase by approximately 8 percent under No Action Alternative build-out, from 4.1 million to over 4.4 million. However, the VMT per capita would decrease from 28.5 average daily miles to 23.2 average daily miles. This reflects the changes discussed above in the *Mode Share* section. In other words, while the total VMT is expected to increase due to growth, the pace at which it increases will slow and the per capita daily VMT is expected to decrease as a larger number of trips are made by non-vehicle modes.

TABLE 11-13 **VMT and VMT per Capita – No Action Alternative**

	Existing	No Action
Daily VMT	4,099,000	4,443,000
Daily VMT per Capita	28.5	23.2

SOURCE: City of Bellevue 2023

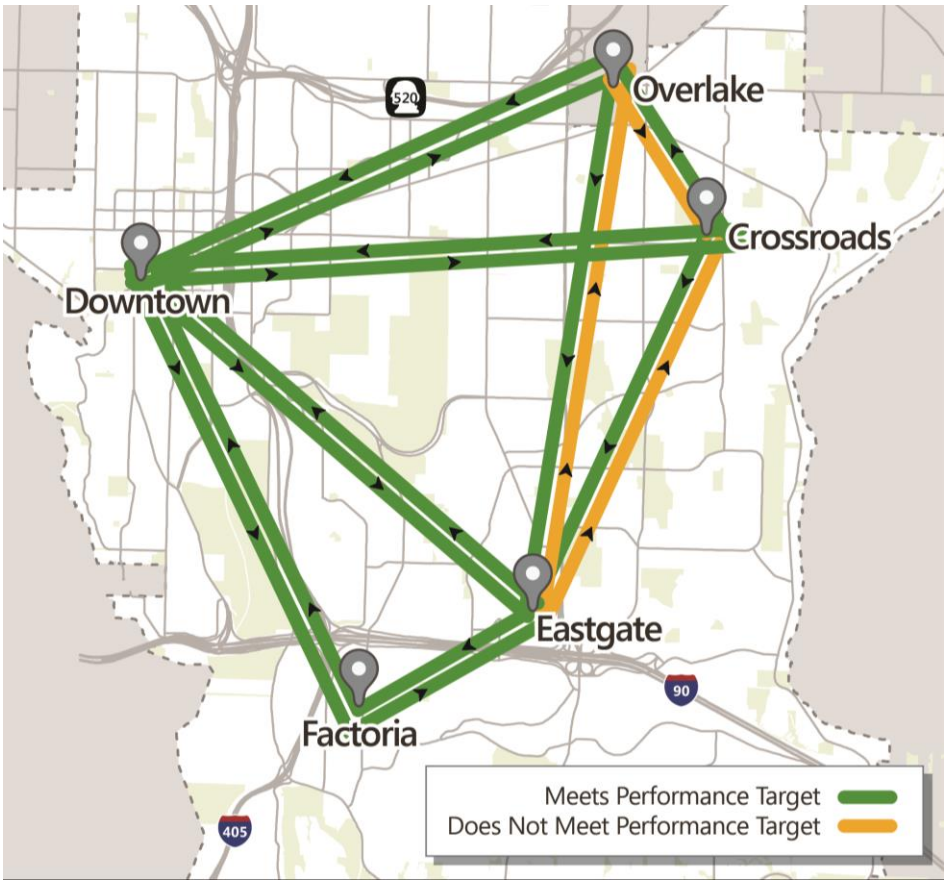
TRANSIT TRAVEL TIME

Using the forecasted Primary Vehicle Corridor travel speeds for vehicles as well as projected transit travel times, transit travel time ratios were calculated for each Activity Center pair. The performance target for transit travel time ratio is no more than 2.0. The results are shown in **Table 11-14** and mapped in **Figure 11-31**. The transit travel time ratios that would not meet the performance target are **shown in bold.**

TABLE 11-14 **Transit Travel Time Ratio – No Action Alternative**

	Downtown	Crossroads	Eastgate	Factoria	Overlake
Downtown	—	0.98	1.06	0.97	0.90
Crossroads	1.81	—	1.81	—	1.66
Eastgate	1.17	**2.15**	—	0.64	**2.29**
Factoria	1.18	—	0.55	—	—
Overlake	0.98	**2.09**	1.95	—	—

SOURCE: City of Bellevue 2023



SOURCE: City of Bellevue 2023

FIGURE 11-31 **Transit Network Performance – No Action Alternative**

Transit travel time ratios are expected to improve for all Activity Center pairs under No Action Alternative build-out, meaning that transit is expected to be a more time-competitive mode in the future. Several key factors are described below:

- **Link Light Rail Extensions:** The BKRCast model assumes the East Link extension is open as well as the planned South Kirkland-Issaquah extension which would include new stations at Eastgate and Richards Road and then connect to the East Main, Downtown, and Wilburton stations. Therefore, the transit travel times between Downtown, Overlake, Factoria, and Eastgate assume use of Link light rail resulting in substantial improvements to the transit travel time ratios. Some pairs' transit travel time ratios would be less than 1.0 indicating that a transit trip travel time is expected to be shorter than a private vehicle trip during the PM peak period.

- **NE 6th Street Extension:** The NE 6th Street extension across I-405 would allow buses to access the Bellevue Transit Center more efficiently by avoiding congestion along NE 8th Street. This results in a benefit to the transit travel time between Downtown and Crossroads.
- **Bellevue College Connection:** The transit travel time vs. auto travel time ratio between Eastgate and Crossroads would decrease with the more direct Bellevue College Connection, bringing the travel time ratio below the 2.0 performance target for the Crossroads to Eastgate trip.

However, even with these substantial improvements, there are three Activity Center pairs that would not meet the MIP identified transit travel time ratio threshold of 2.0, constituting an impact under the No Action Alternative:

- Eastgate to Crossroads
- Eastgate to Overlake
- Overlake to Crossroads

SYSTEM INTERSECTION VOLUME-TO-CAPACITY RATIO

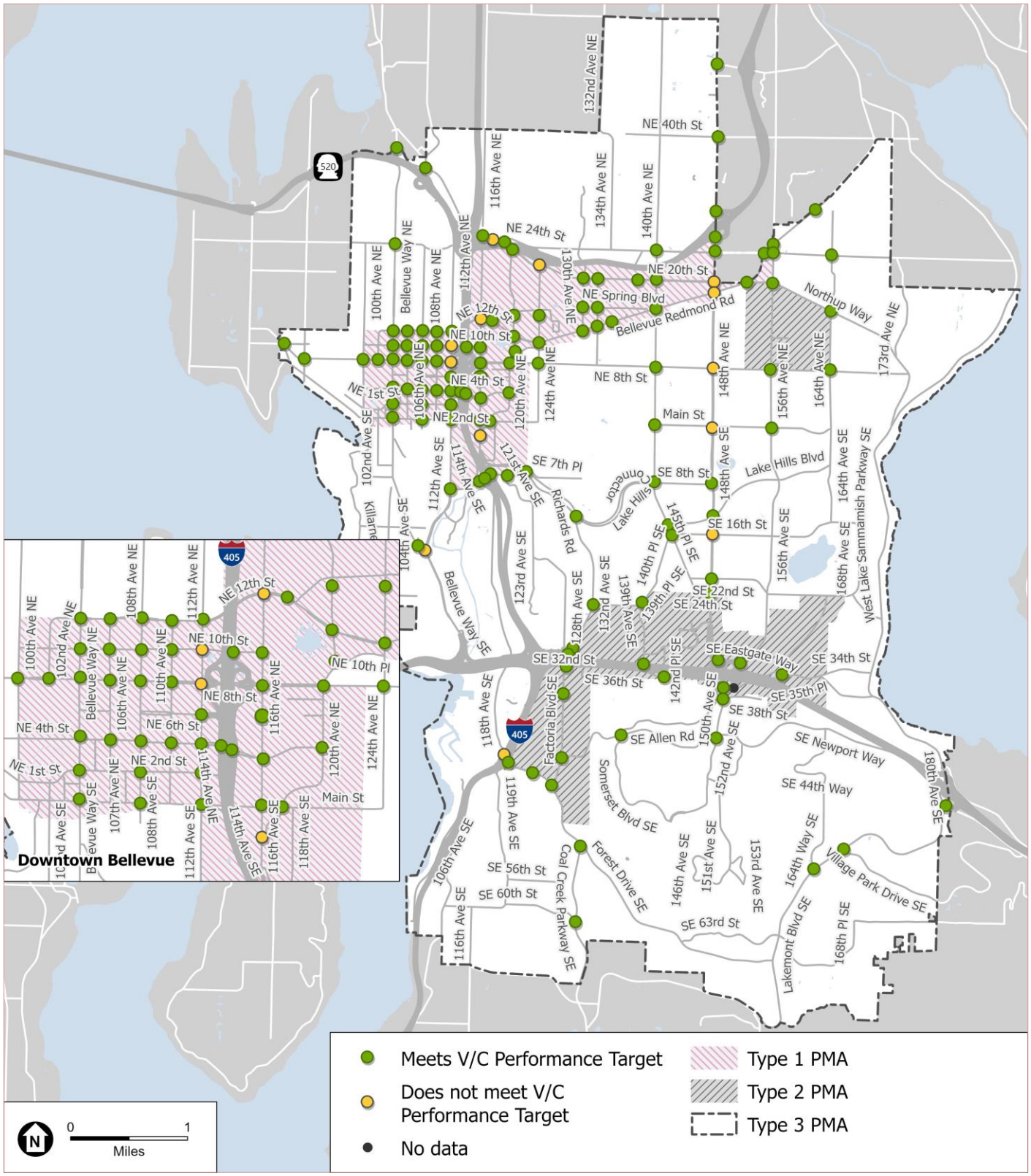
The BKRCast travel demand model was used to forecast volumes at each System Intersection under the No Action Alternative. A summary of results is shown in **Table 11-15** and mapped in **Figure 11-32**. The table includes all intersections that would not meet their performance target under the No Action Alternative along with the V/C ratios expected under existing conditions for comparison. A complete tabular summary is included in Appendix C.

Under the No Action Alternative: 67 of 74 (91 percent) of System Intersections in Type 1 PMAs are expected to meet their target (a decrease of five intersections from existing conditions), 23 of 24 (96 percent) of System Intersections in Type 2 PMAs are expected to meet their target (the same as existing conditions), and 31 of 36 (86 percent) of System Intersections in the Type 3 PMA are expected to meet their target (an increase of three intersections from existing conditions due to planned intersection improvements and the assumed systemwide congestion pricing). The 13 intersections that are not expected to meet their V/C performance target, constituting an impact under the No Action Alternative, are **shown in bold** in Table 11-15.

TABLE 11-15 **Vehicle Network Performance – System Intersections – No Action Alternative**

Performance Management Area	Performance Target	% of Intersections Meeting Target[a]	
		Existing	No Action
Type 1 PMA	1.00	97%	91%
Type 2 PMA	0.90	96%	96%
Type 3 PMA	0.85	78%	86%
Total System intersections		***92%***	***90%***
Performance Management Area and Performance Target	**Intersections Not Meeting Target under No Action Alternative**	**V/C Ratio**	
		Existing	**No Action**
Type 1 PMA (Performance Target = 1.00)	**112th Ave NE & NE 8th St**	1.00	**1.19**
	112th Ave NE & NE 10th St	0.72	**1.08**
	116th Ave NE & NE 12th St	0.80	**1.24**
	148th Ave NE & NE 20th St	0.93	**1.01**
	148th Ave NE & Bel-Red Rd	0.98	**1.10**
	124th Ave NE & Northup Wy	0.54	**1.18**
	116th Ave SE & SE 1st St	0.85	**1.13**
Type 2 PMA (Performance Target = 0.90)	**I-405 SB Ramps & Coal Creek Pkwy**	0.81	**1.14**
Type 3 PMA (Performance Target = 0.85)	**112th Ave SE & Bellevue Wy SE**	0.77	**0.98**
	148th Ave NE & NE 8th St	0.99	**0.94**
	148th Ave & Main St	0.95	**0.95**
	148th Ave SE & SE 16th St	0.88	**0.86**
	115th Pl NE & Northup Wy	0.95	**0.97**

SOURCE: City of Bellevue 2023



SOURCE: City of Bellevue 2023

FIGURE 11-32 **System Intersection Performance – No Action Alternative**

PRIMARY VEHICLE CORRIDOR TRAVEL SPEED

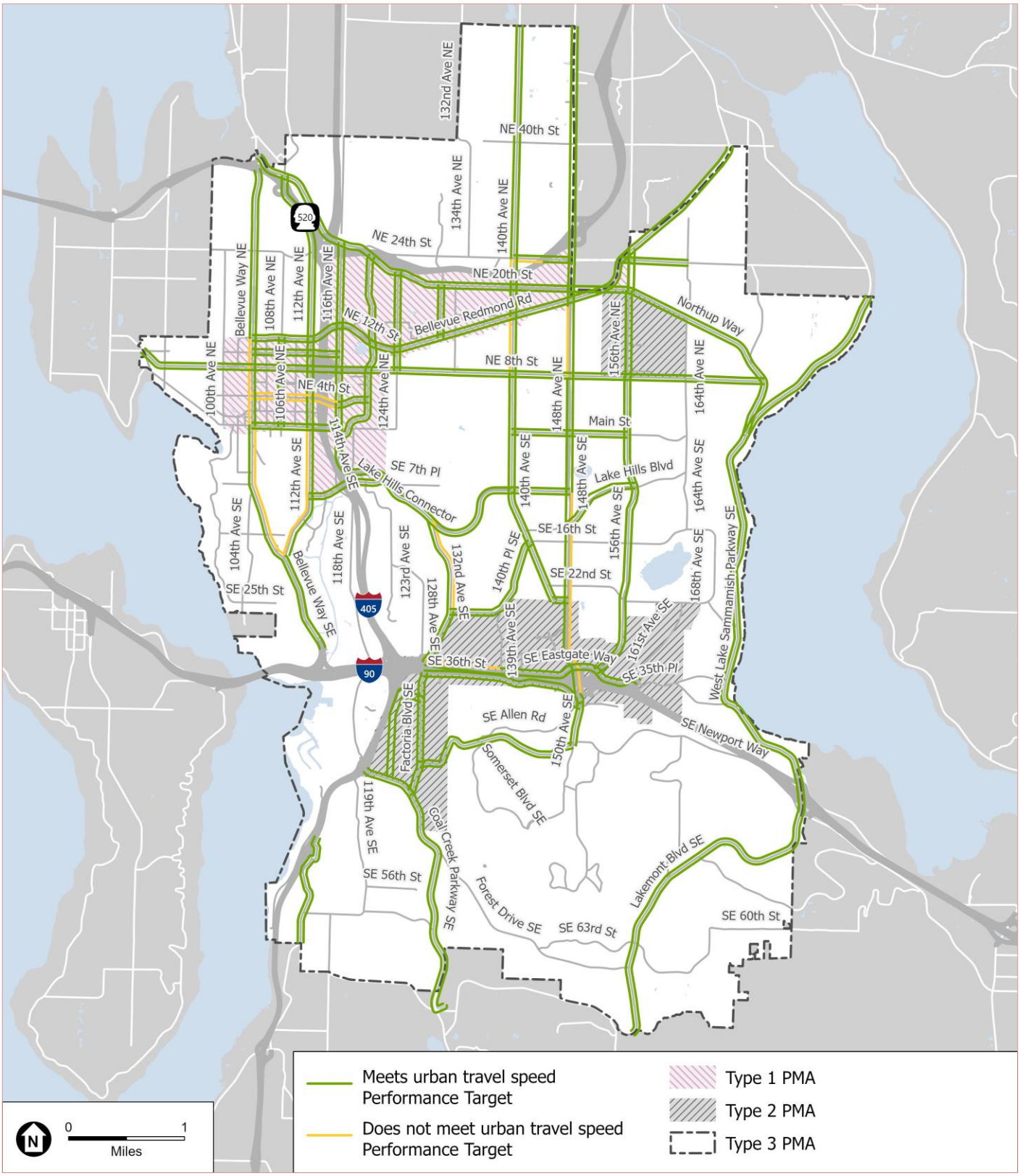
The BKRCast travel demand model was used to forecast vehicle corridor speeds along Primary Vehicle Corridors under the No Action Alternative. The locations that do not currently meet their performance targets would also not meet the targets under the No Action Alternative, constituting an impact. Fourteen of the 95 Primary Vehicle Corridors would be impacted under the No Action Alternative; these Primary Vehicle Corridors are listed in **Table 11-16**. Results are mapped in **Figure 11-33** and a full tabular summary is included in Appendix C.

TABLE 11-16 **Vehicle Network Performance – Primary Vehicle Corridor Speed – No Action Alternative**

Performance Management Area and Performance Target	Corridors Not Meeting Performance Target	Speed (miles per hour)	
		Existing	No Action
Type 1 PMA (Performance target ≥0.5 Typical Urban Travel Speed)	Bellevue Way – NE 12th St to Main St (SB/WB)	5	5
	112th Ave SE – Main St to SE 8th St (SB/WB)	7	6
	140th Ave NE – Bel-Red Rd to NE 14th St (SB/WB)	5	5
	NE 4th St – Bellevue Way to 116th Ave NE (NB/EB and SB/WB)	5	5
Type 2 PMA (Performance target ≥0.75 Typical Urban Travel Speed)	148th Ave – SE 24th St to SE 37th St (SB/WB)	6	7
	Eastgate Way – Richards Rd to 139th Ave SE (SB/WB)	10	10
Type 3 PMA (Performance target ≥0.9 Typical Urban Travel Speed)	Bellevue Way – Main St to 112th Ave SE (SB/WB)	11	10
	112th Ave SE – SE 8th St to Bellevue Wy (SB/WB)	7	6
	Richards Road – Lk Hills Connector to SE 26th St (SB/WB)	12	12
	140th Ave NE – NE 24th St to SR 520 (SB/WB)	10	10
	140th Ave NE – NE 14th St to NE 8th St (SB/WB)	5	5
	148th Ave – NE 15th Ct to NE 8th St (SB/WB)	12	12
	148th Ave – SE 8th St to SE 24th St (SB/WB)	9	9
	NE 24th St – 140th Ave NE to SR 520 (NB/EB)	11	13

SOURCE: City of Bellevue 2023

EB = east bound; NB = north bound; SB = southbound; WB = westbound.
NOTE: Spring Boulevard between NE 12th Street and NE 20th Street is a Primary Vehicle Corridor, but data are currently insufficient to project future volumes as it has only recently opened.



SOURCE: City of Bellevue 2023

FIGURE 11-33 **Primary Vehicle Corridor Speed – No Action Alternative**

STATE FACILITIES

The No Action Alternative would result in growth in vehicle volumes on freeway segments identified in Section 11.2.5, *State Facilities*. Overall, volumes at these study locations are expected to increase under No Action Alternative build-out, generally in the range of 5 to 15 percent. However, I-90 volumes would grow by a smaller amount, and potentially even decrease across the I-90 bridge, with the addition of East Link.

As shown in **Table 11-17**, the study locations along SR 520 and I-90 are expected to operate at LOS D or better under the No Action Alternative, but the three locations along I-405 are all expected to degrade further such that none of them meet the LOS D standard. The locations that would not meet their LOS standard are **shown in bold**. Of the three segments that would not meet the LOS D standard, two are already not meeting the threshold while the third is on the verge of not meeting LOS D in the existing conditions (0.99).

TABLE 11-17 **State Facility Performance –No Action Alternative**

	Existing		No Action Alternative	
Study Location	AADT	Volume-to-LOS D Maximum Service Volume Ratio	AADT	Volume-to-LOS D Maximum Service Volume Ratio
I-405 north of SR 520	211,000	0.99	228,000	**1.07**
I-405 between SR 520 and I-90	205,000	**1.07**	238,000	**1.24**
I-405 south of I-90	150,000	**1.16**	181,000	**1.39**
SR 520 west of I-405	74,000	0.57	78,000	0.60
SR 520 east of I-405	105,000	0.83	121,000	0.95
I-90 west of I-405	148,000	0.86	145,000	0.84
I-90 east of I-405	152,000	0.71	156,000	0.73

SOURCE: City of Bellevue 2023; Fehr & Peers 2023

An impact for the No Action Alternative is defined as any location not meeting the WSDOT LOS standard. Therefore, the three study locations along I-405 are expected to be impacted under the No Action Alternative: I-405 north of SR 520, I-405 between SR 520 and I-90, and I-405 south of I-90.

WILBURTON STUDY AREA

Primary Vehicle Corridor travel speed and System Intersection V/C ratio results within the Wilburton study area are shown in **Figure 11-34**. The V/C ratio results are summarized in **Table 11-18** and impacted locations are **shown in bold.** As shown in the table, with build-out of the modeled capacity, most System Intersections are expected to operate at higher V/C ratios relative to existing conditions. However, most locations would still meet the 1.0 performance target for a Type 1 PMA. Under the No Action Alternative, two intersections within the study area would not meet their V/C performance target, constituting an impact:

- 116th Avenue NE & NE 12th Street
- 116th Avenue SE & SE 1st Street

Although not located geographically within the Wilburton study area, two other nearby intersections that provide access between Downtown and Wilburton would not meet their performance target:

- 112th Avenue NE & NE 10th Street
- 112th Avenue NE & NE 8th Street

One corridor that connects Downtown and the Wilburton study area across I-405 would not meet its travel speed performance target under the No Action Alternative:

- NE 4th Street from 108th Avenue NE to 116th Avenue NE

These locations are all considered impacted under the No Action Alternative.

SOURCE: City of Bellevue 2023

FIGURE 11-34 **Primary Vehicle Corridor System Intersection and Speed Performance – No Action Alternative in the Wilburton Study Area Vicinity**

TABLE 11-18 **Wilburton Study Area Vehicle Network Performance – System Intersections – No Action Alternative**

Intersection	V/C Ratio	
	Existing	No Action
I-405 SB Ramps & NE 4th St	0.60	0.54
116th Ave NE & NE 12th St	0.80	**1.24**
120th Ave NE & NE 12th St	0.57	0.77
124th Ave NE & Bel-Red Rd	0.82	0.89
Spring Blvd & NE 12th St	0.42	0.49
120th Ave NE & Bel-Red Rd	0.39	0.40
116th Ave NE & NE 8th St	0.73	0.82
116th Ave & Main St	0.65	0.79
116th Ave SE & SE 1st St	0.85	**1.13**
116th Ave NE & NE 4th St	0.92	0.97
120th Ave NE & NE 8th St	0.62	0.70
116th Ave NE & NE 10th St	0.53	0.69
NE 1st St & Main St	0.49	0.60
120th Ave NE & NE 4th St	0.45	0.49
I-405 NB Ramps & NE 4th St	0.51	0.58
I-405 NB Ramps & NE 10th St	0.47	0.61
124th Ave NE & NE 8th St	0.53	0.74
116th Ave NE & NE 6th St	N/A	0.75

SOURCE: City of Bellevue 2023

NOTE: All System Intersections within the Wilburton study area have a 1.0 performance target except for 124th Avenue NE/NE 8th Street, which has a 0.85 performance target.

11.5.5 Alternative 1

This section summarizes the model results for Alternative 1 and the impacts expected based on the thresholds of significance stated in Section 11.5.2, *Thresholds of Significance*.

MODE SHARE

Table 11-19 summarizes the mode shares projected under Alternative 1 in comparison to the No Action Alternative. Mode shares are expected to be similar between the two alternatives, particularly the walk and bicycle modes. However, slight differences in mode share are expected among driving and transit with Alternative 1 expected to have a slightly higher share of workers' trips made by driving (64 percent compared to 60 percent) rather than transit (29 percent compared to 32 percent).

TABLE 11-19 **Mode Share – Alternative 1**

	Bellevue Workers		Bellevue Residents	
Mode	No Action	Alternative 1	No Action	Alternative 1
Walk	7%	8%	19%	20%
Bicycle	0%	0%	1%	1%
SOV	41%	44%	29%	29%
HOV	19%	20%	40%	37%
Transit	32%	29%	12%	12%

SOURCE: City of Bellevue 2023

NOTE: Mode shares are rounded and may not sum to 100%.

VMT PER CAPITA

Table 11-20 presents the total VMT and VMT per capita under Alternative 1 compared to the No Action Alternative. The BKRCast model projects that total daily VMT would increase to nearly 4.6 million, a 3 percent increase over the No Action Alternative. However, daily VMT per capita is expected to be approximately 7 percent lower at 21.6 miles per day.

TABLE 11-20 **VMT and VMT per Capita – Alternative 1**

	No Action Alternative	Alternative 2
Daily VMT	4,443,000	4,596,000
Daily VMT per Capita	23.2	21.6

SOURCE: City of Bellevue 2023

Based on the thresholds of significance defined for this EIS, an Action Alternative would result in a significant impact if the VMT per capita is projected to increase by at least 1 percent over the No Action Alternative. Because VMT per capita is expected to decrease relative to the No Action Alternative, no significant impact on VMT is expected under Alternative 1.

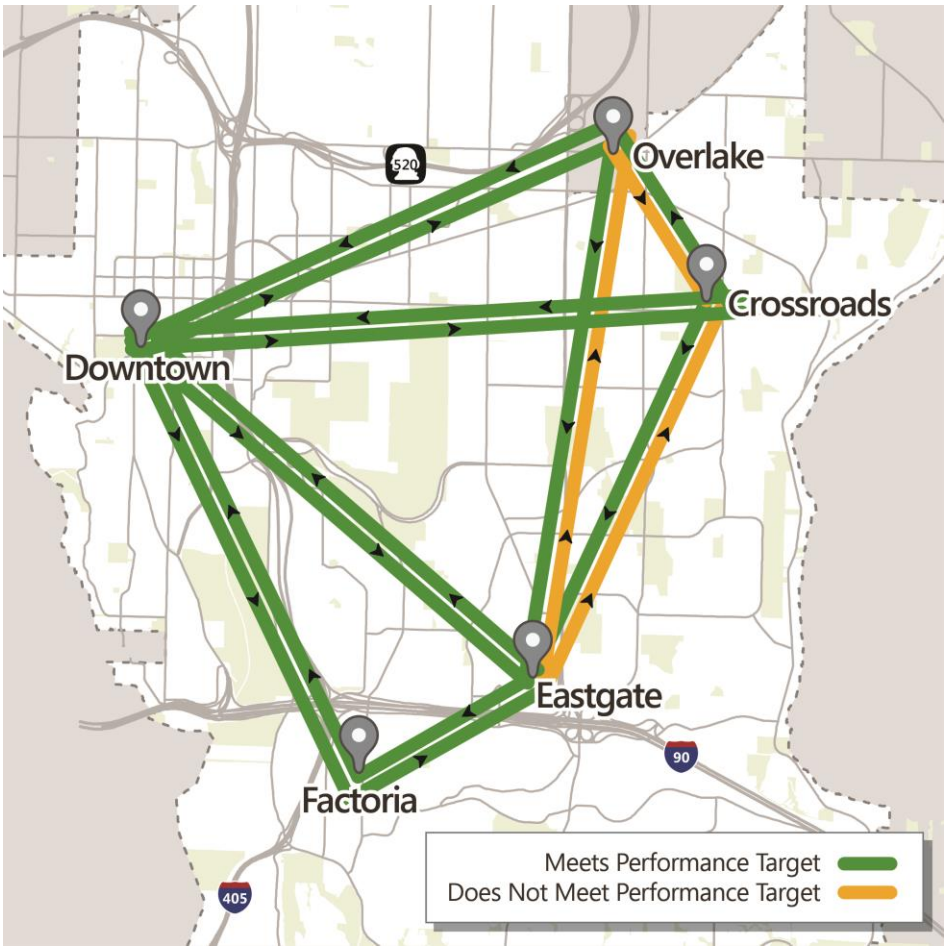
TRANSIT TRAVEL TIME

Table 11-21 and **Figure 11-35** summarize the projected transit travel time results under Alternative 1. The transit travel time ratios that would not meet the performance target are **shown in bold**. Under Alternative 1, transit travel time ratios are expected to stay the same or decrease relative to the No Action Alternative. This indicates that relative to the No Action Alternative, transit would be a more competitive option under Alternative 1 given increasing roadway congestion. Three Activity Center pairs are not expected to meet the MIP identified transit travel time ratio threshold of 2.0: Eastgate to Crossroads, Eastgate to Overlake, and Overlake to Crossroads.

TABLE 11-21 **Transit Travel Time Ratio – Alternative 1**

	Downtown	Crossroads	Eastgate	Factoria	Overlake
Downtown	—	0.99	0.95	0.85	0.88
Crossroads	1.78	—	1.77	—	1.66
Eastgate	1.17	**2.15**	—	0.64	**2.29**
Factoria	1.13	—	0.52	—	—
Overlake	0.95	**2.07**	1.93	—	—

SOURCE: City of Bellevue 2023



SOURCE: City of Bellevue 2023

FIGURE 11-35 **Transit Network Performance – Alternative 1**

Based on the threshold of significance defined for this EIS, an Action Alternative would result in a significant impact if it caused an increase in the transit travel time ratio beyond 2.0 for an Activity Center pair that met the MIP performance target under No Action or caused an increase in the travel time ratio by 0.1 or more for any Activity Center pair that did not meet the MIP performance target under No Action. Because the three Activity Center pairs noted above would already not meet the target under the No Action Alternative and would not meet the threshold of significance relative to the No Action Alternative, no significant impact on transit travel time is identified under Alternative 1.

SYSTEM INTERSECTION VOLUME-TO-CAPACITY RATIO

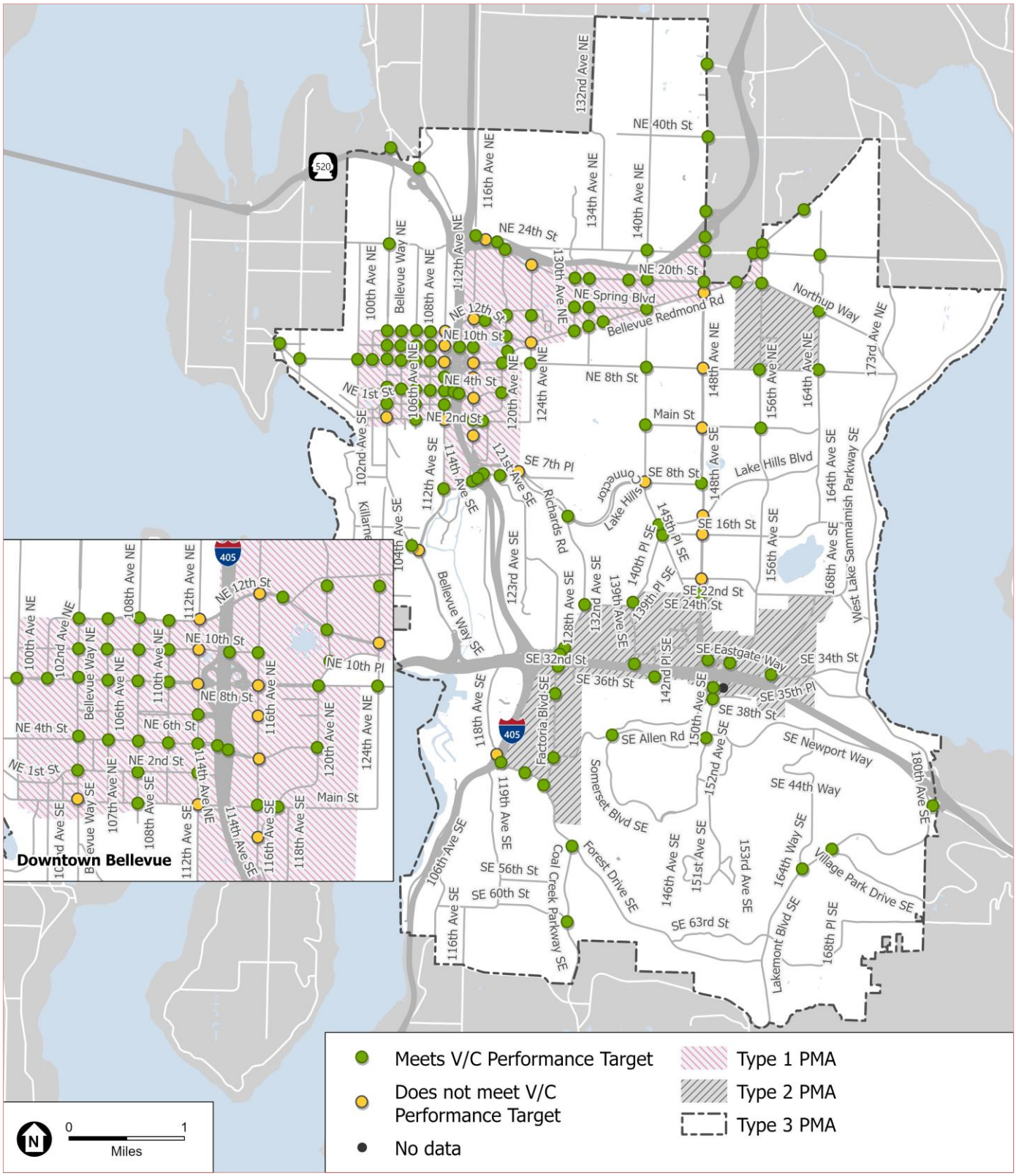
A summary of intersection V/C results for Alternative 1 is shown in **Table 11-22** and mapped in **Figure 11-36**. The table includes all intersections that would not meet their performance target under Alternative 1 along with the V/C ratios expected under the No Action Alternative for comparison. A complete tabular summary is included in Appendix C. Under Alternative 1, 112 of 134 System Intersections (84 percent) would meet their target, a decrease of nine intersections relative the No Action Alternative. Specifically, the number of System Intersections that would not meet their target would decrease to 61 of 74 (82 percent) in Type 1 PMAs and 28 of 36 (78 percent) in the Type 3 PMA. The number of System Intersections that would meet their target in Type 2 PMAs would remain the same between the No Action Alternative and Alternative 1 (23 of 24 System Intersections).

Based on the thresholds of significance defined for this EIS, an Action Alternative results in a significant impact if it causes a System Intersection that meets its performance target under the No Action Alternative to not meet its target or for an intersection that already does not meet the performance target under the No Action Alternative, an increase in the V/C ratio by 0.05 or more over No Action. Based on that criteria, 18 System Intersections would be significantly impacted under Alternative 1. Impacted System Intersections are **shown in bold** in Table 11-22.

TABLE 11-22 **Vehicle Network Performance – System Intersections – Alternative 1**

Performance Management Area	Performance Target	% of Intersections Meeting Target	
		No Action	Alternative 1
Type 1 PMA	1.00	91%	82%
Type 2 PMA	0.90	96%	96%
Type 3 PMA	0.85	86%	78%
Total System intersections		***90%***	***84%***
Performance Management Area and Performance Target	**Intersections That Would Not Meet Target under Alternative 1**	**V/C Ratio**	
		No Action	**Alternative 1**
Type 1 PMA (Performance Target = 1.00)	**Bellevue Wy & Main St**	0.97	**1.01**
	112th Ave NE & NE 12th St	0.99	**1.07**
	112th Ave NE & NE 8th St	1.19	**1.27**
	112th Ave & Main St	0.97	**1.07**
	112th Ave NE & NE 10th St	1.08	**1.23**
	116th Ave NE & NE 12th St	1.24	**1.57**
	124th Ave NE & Bel-Red Rd	0.89	**1.04**
	148th Ave NE & Bel-Red Rd	1.10	**1.15**
	124th Ave NE & Northup Wy	1.18	**1.32**
	116th Ave NE & NE 8th St	0.82	**1.12**
	116th Ave SE & SE 1st St	1.13	**1.20**
	116th Ave NE & NE 4th St	0.97	**1.27**
	Lk Hills Connector& SE 7th Pl	1.00	**1.12**
Type 2 PMA (Performance Target = 0.90)	**I-405 SB Ramps & Coal Creek Pkwy**	1.14	**1.20**
Type 3 PMA (Performance Target = 0.85)	**112th Ave SE & Bellevue Wy SE**	0.98	**1.05**
	140th Ave SE & SE 8th St	0.85	**0.87**
	148th Ave NE & NE 8th St	0.94	0.96
	148th Ave & Main St	0.95	0.99
	148th Ave SE & Lk Hills Blvd	0.85	**0.86**
	148th Ave SE & SE 16th St	0.86	0.88
	115th Pl NE & Northup Wy	0.97	0.97
	148th Ave SE & SE 22nd St	0.85	**0.91**

SOURCE: City of Bellevue 2023



SOURCE: City of Bellevue 2023

FIGURE 11-36 **System Intersection Performance – Alternative 1**

PRIMARY VEHICLE CORRIDOR TRAVEL SPEED

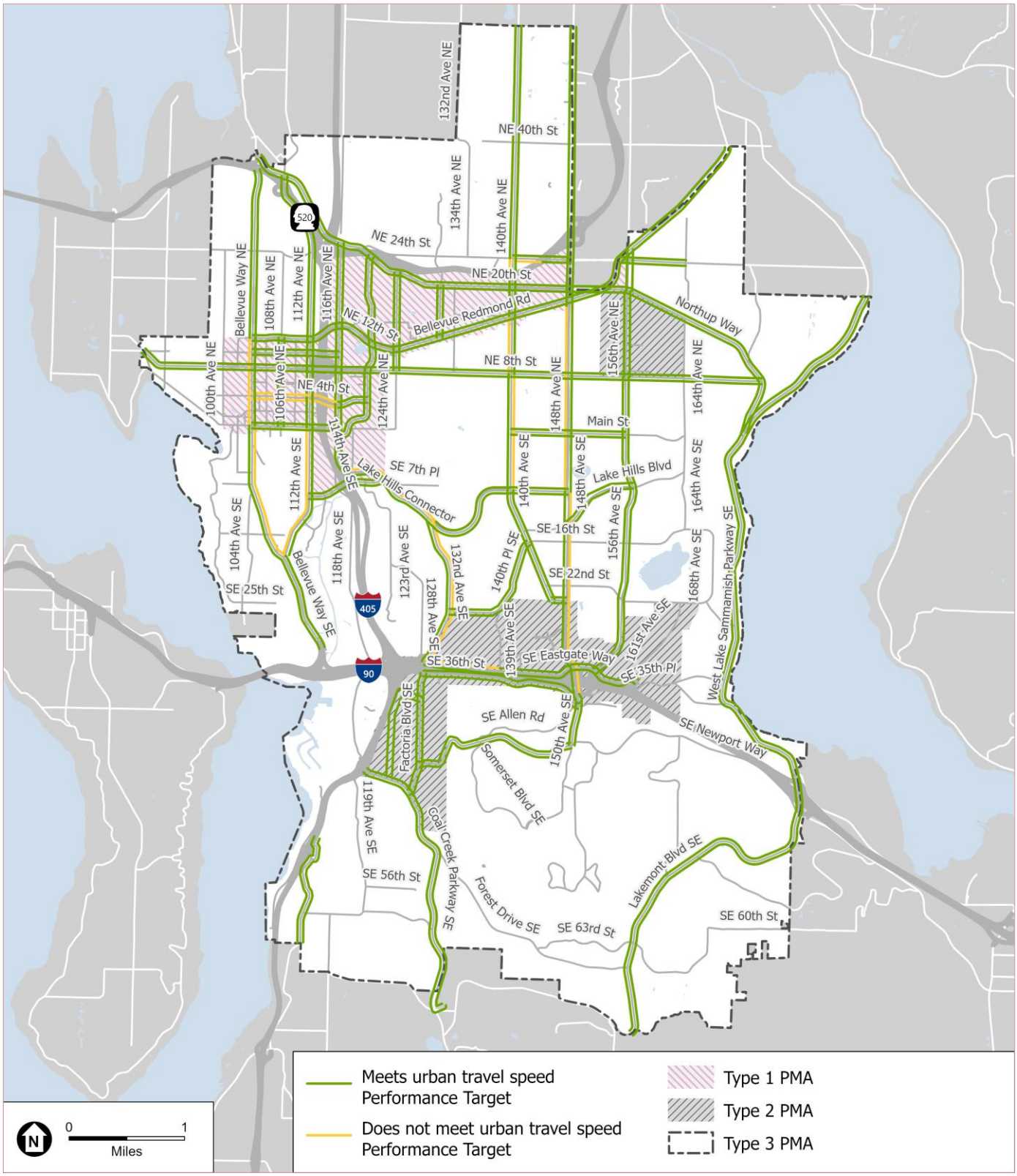
The BKRCast travel demand model was used to forecast vehicle corridor speeds along Primary Vehicles Corridors under Alternative 1. Results are shown in **Figure 11-37** and **Table 11-23**. The table lists the corridors that would not meet their performance target under Alternative 1 along with the speeds under both the No Action Alternative and Alternative 1 for comparison. A full tabular summary is included in Appendix C.

The 14 locations that would not meet their performance target under the No Action Alternative would also not meet the target under Alternative 1. In addition, four more corridors would also not meet their target under Alternative 1. Those include: 116th Avenue NE/Lake Hills Connector between SE 8th Street and Richards Road, Richards Road between SE 26th Street and I-90, 140th Avenue between NE 8th Street and SE 8th Street, and 148th Avenue between NE 8th Street and SE 8th Street. Therefore, in total, 18 of the 95 Primary Vehicle Corridors would not meet their performance target under Alternative 1.

Based on the threshold of significance defined in this EIS, an Action Alternative results in a significant impact if it would cause a Primary Vehicle Corridor that met its performance target under No Action to not meet its target or for a corridor that already does not meet the performance target, a reduction in the travel speed/Typical Urban Travel Speed ratio by 0.05 or more below No Action. Using this criteria, Alternative 1 would significantly impact two corridors (also **shown in bold** in Table 11-23):

- 112th Avenue SE from Main Street to SE 8th Street
- Richards Road from Lake Hills Connector to SE 26th Street

While neither location would meet the performance target in the No Action Alternative, the travel speed-to-Typical Urban Travel Speed ratio degrades by 0.05 or more in both instances. Therefore, travel speed on these corridors is considered significantly impacted under Alternative 1.



SOURCE: City of Bellevue 2023

FIGURE 11-37 **Primary Vehicle Corridor Speed – Alternative 1**

TABLE 11-23 **Vehicle Network Performance – Primary Vehicle Corridor Speed – Alternative 1**

Performance Management Area and Performance Target	Corridors That Would Not Meet Performance Target	Speed (miles per hour)	
		No Action	Alt 1
Type 1 PMA (Performance target ≥0.5 Typical Urban Travel Speed)	Bellevue Wy – NE 12th St to Main St	5	5
	112th Ave SE – Main St to SE 8th St (SB/WB)	6	**5**
	140th Ave NE – Bel-Red Rd to NE 14th St (SB/WB)	5	5
	NE 4th St – Bellevue Way to 116th Ave NE (NB/EB and SB/WB)	5	5
Type 2 PMA (Performance target ≥0.75 Typical Urban Travel Speed)	148th Ave – SE 24th St to SE 37th St (SB/WB)	7	7
	Eastgate Way – Richards Rd to 139th Ave SE (SB/WB)	10	10
	Richards Rd – SE 26th St to I-90 (SB/WB)	12	11
Type 3 PMA (Performance target ≥0.9 Typical Urban Travel Speed)	Bellevue Way – Main St to 112th Ave SE (SB/WB)	10	9
	112th Ave SE – SE 8th St to Bellevue Wy (SB/WB)	6	6
	116th Ave NE/Lk Hills Connector – SE 8th St to Richards Rd (SB/WB)	15	12
	Richards Rd – Lk Hills Connector to SE 26th St (SB/WB)	12	**10**
	140th Ave NE – NE 24th St to SR 520 (SB/WB)	10	10
	140th Ave NE – NE 14th St to NE 8th St (SB/WB)	5	5
	140th Ave – NE 8th St to SE 8th St (SB/WB)	11	10
	148th Ave – NE 15th Ct to NE 8th St (SB/WB)	12	11
	148th Ave – NE 8th St to SE 8th St (SB/WB)	14	13
	148th Ave – SE 8th St to SE 24th St (SB/WB)	9	8
	NE 24th St – 140th Ave NE to SR 520 (NB/EB)	13	12

SOURCE: City of Bellevue 2023

EB = east bound; NB = north bound; SB = southbound; WB = westbound.
NOTE: Spring Boulevard between NE 12th Street and NE 20th Street is a Primary Vehicle Corridor, but data are currently insufficient to project future volumes as it has only recently opened.

STATE FACILITIES

Table 11-24 summarizes projected daily volumes at each of the state facility study locations under Alternative 1. As is the case under the No Action Alternative, the three study locations along I-405 are expected to exceed the volumes needed to maintain a LOS D standard and would also operate slightly worse than under the No Action Alternative. The other four study locations would continue to meet the WSDOT standard although SR 520 east of I-405 would nearly reach the maximum LOS D service volume at 0.99.

TABLE 11-24 **State Facility Performance – Alternative 1**

	No Action Alternative		Alternative 1	
Study Location	AADT	Volume-to-LOS D Maximum Service Volume Ratio	AADT	Volume-to-LOS D Maximum Service Volume Ratio
I-405 north of SR 520	228,000	**1.07**	232,000	**1.09**
I-405 between SR 520 and I-90	238,000	**1.24**	240,000	**1.25**
I-405 south of I-90	181,000	**1.39**	184,000	**1.42**
SR 520 west of I-405	78,000	0.60	83,000	0.64
SR 520 east of I-405	121,000	0.95	126,000	0.99
I-90 west of I-405	145,000	0.84	147,000	0.85
I-90 east of I-405	156,000	0.73	157,000	0.74

SOURCE: Fehr & Peers 2023

The impact criteria defined for this EIS state that an Action Alternative results in a significant impact on a state facility if it would cause a study location meeting the WSDOT standard under the No Action Alternative to not meet the standard or cause an increase in state facility volume-to-capacity ratio of 0.01 or more for a location that did not meet the LOS standard under No Action.

Based on these criteria, the three study segments of I-405 would be significantly impacted by Alternative 1: I-405 north of SR 520, I-405 between SR 520 and I-90, and I-405 south of I-90.

WILBURTON STUDY AREA

Primary Vehicle Corridor travel speed and intersection V/C ratio results within the Wilburton study area are shown in **Figure 11-38**. V/C ratio results are summarized in **Table 11-25** and impacted locations are **shown in bold.** Relative to the No Action Alternative, three additional intersections are not expected to meet the V/C performance target in the Wilburton study area under Alternative 1. Along 116th Avenue NE, the intersections at NE 8th Street and NE 4th Street would not meet their performance target. On the northeast corner of the study area, 124th Avenue NE and Bel-Red Road would also not meet its performance target under Alternative 1. West of the Wilburton study area, Alternative 1 would also cause two additional System Intersections along 112th Avenue NE to not meet their target.

Five System Intersections would result in V/C ratios that constitute significant impacts:

- 116th Avenue NE & NE 12th Street
- 124th Avenue NE & Bel-Red Road
- 116th Avenue NE & NE 8th Street
- 116th Avenue NE & SE 1st Street
- 116th Avenue NE & NE 4th Street

One additional corridor that provides access to the study area from the south would not meet the travel speed performance target: 116th Avenue NE from SE 5th Street to the southern edge of the Wilburton study area.

SOURCE: City of Bellevue 2023

FIGURE 11-38 **Primary Vehicle Corridor System Intersection and Speed Performance – Alternative 1 in the Wilburton Study Area Vicinity**

TABLE 11-25 **Wilburton Study Area Vehicle Network Performance – System Intersections – Alternative 1**

Intersection	V/C Ratio	
	No Action	Alternative 1
I-405 SB Ramps & NE 4th St	0.54	0.57
116th Ave NE & NE 12th St	**1.24**	**1.57**
120th Ave NE & NE 12th St	0.77	0.80
124th Ave NE & Bel-Red Rd	0.89	**1.04**
Spring Blvd & NE 12th St	0.49	0.60
120th Ave NE & Bel-Red Rd	0.40	0.43
116th Ave NE & NE 8th St	0.82	**1.12**
116th Ave & Main St	0.79	0.87
116th Ave SE & SE 1st St	**1.13**	**1.20**
116th Ave NE & NE 4th St	0.97	**1.27**
120th Ave NE & NE 8th St	0.70	0.88
116th Ave NE & NE 10th St	0.69	0.76
NE 1st St & Main St	0.60	0.86
120th Ave NE & NE 4th St	0.49	0.52
I-405 NB Ramps & NE 4th St	0.58	0.64
I-405 NB Ramps & NE 10th St	0.61	0.78
124th Ave NE & NE 8th St	0.74	0.82
116th Ave NE & NE 6th St	0.75	1.06

SOURCE: City of Bellevue 2023

NOTE: All System Intersections within the Wilburton study area have a 1.0 performance target except for 124th Avenue NE/NE 8th Street, which has a 0.85 performance target.

11.5.6 Alternative 2

This section summarizes the model results for Alternative 2 and the impacts expected based on the thresholds of significance stated in Section 11.5.2, *Thresholds of Significance*.

MODE SHARE

Table 11-26 summarizes the mode shares projected under Alternative 2 in comparison to the No Action Alternative. Alternative 2 is expected to result in slightly higher walk and SOV shares than the No Action Alternative for both Bellevue workers and residents. Among Bellevue workers, HOV shares are expected to remain the same, but would have slightly lower transit shares (correlating with the magnitude of increase in SOV). Among Bellevue residents, the transit mode share is expected to be the same between the two alternatives with a lower HOV share reflecting the shift to higher walk and SOV shares.

TABLE 11-26 **Mode Share – Alternative 2**

	Bellevue Workers		Bellevue Residents	
Mode	No Action	Alternative 2	No Action	Alternative 2
Walk	7%	8%	19%	21%
Bicycle	0%	0%	1%	1%
SOV	41%	44%	29%	30%
HOV	19%	19%	40%	36%
Transit	32%	29%	12%	12%

SOURCE: City of Bellevue 2023

NOTE: Mode shares are rounded and may not sum to 100%.

VMT PER CAPITA

Table 11-27 presents the total VMT and VMT per capita under Alternative 2 compared to the No Action Alternative. The BKRCast model projects that total daily VMT would increase to over 4.6 million, a 5 percent increase over the No Action Alternative and slightly higher than Alternative 1. However, daily VMT per capita is expected to be approximately 3 miles, or 13 percent, lower than the No Action Alternative at 20.2 miles per day. Alternative 2 daily VMT per capita would also be lower than that projected for Alternative 1.

TABLE 11-27 **VMT and VMT per Capita – Alternative 2**

	No Action Alternative	Alternative 2
Daily VMT	4,443,000	4,681,000
Daily VMT per Capita	23.2	20.2

SOURCE: City of Bellevue 2023

Because daily VMT per capita is expected to decrease relative to the No Action Alternative, no significant impact on VMT is expected under Alternative 2.

TRANSIT TRAVEL TIME

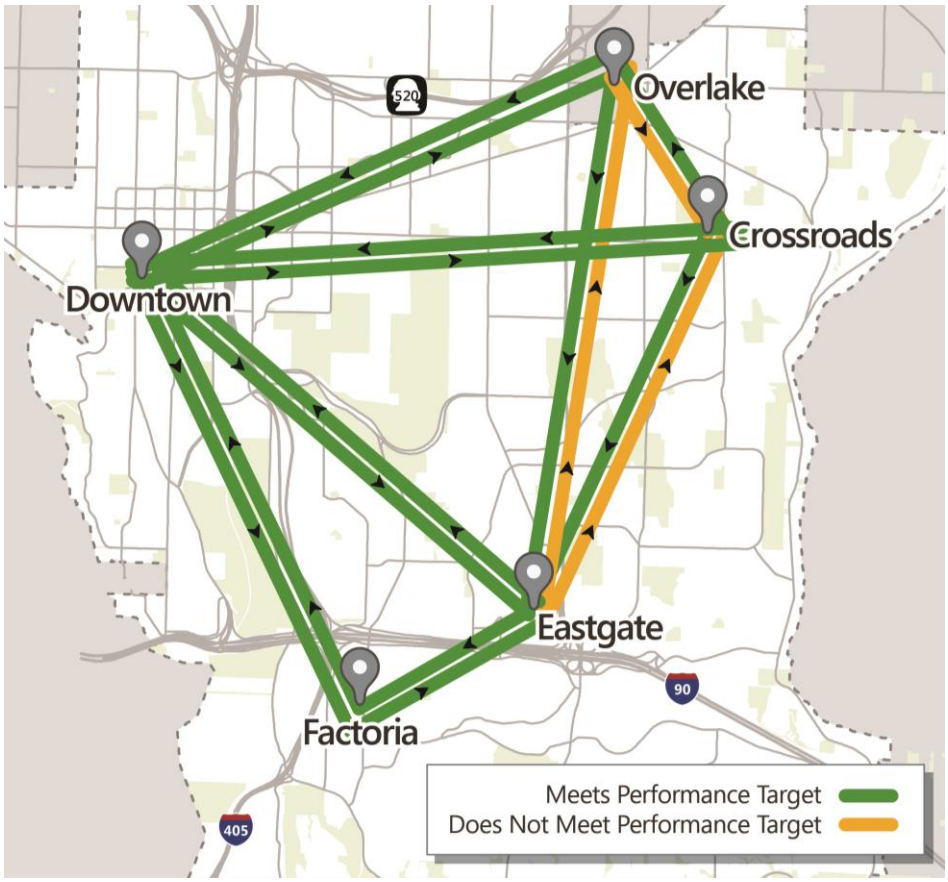
Using the forecasted Primary Vehicle Corridor travel speeds for vehicles as well as projected transit travel times, transit travel time ratios were calculated for each Activity Center pair. As shown in **Table 11-28** and **Figure 11-39**, there are three Activity Center pairs that are not expected to meet the MIP identified transit travel time ratio threshold of 2.0: Eastgate to Crossroads, Eastgate to Overlake, and Overlake to Crossroads. The transit travel time ratios that would not meet the performance target are **shown in bold.**

TABLE 11-28 **Transit Travel Time Ratio – Alternative 2**

	Downtown	Crossroads	Eastgate	Factoria	Overlake
Downtown	—	0.99	0.91	0.82	0.87
Crossroads	1.78	—	1.74	—	1.65
Eastgate	1.15	**2.14**	—	0.64	**2.27**
Factoria	1.12	—	0.52	—	—
Overlake	0.93	**2.04**	1.90	—	—

SOURCE: City of Bellevue 2023

Because the three Activity Center pairs noted above already did not meet the target under the No Action Alternative and would not meet the threshold of significance relative to the No Action Alternative, no significant impact on transit travel time is identified under Alternative 2.



SOURCE: City of Bellevue 2023

FIGURE 11-39 **Transit Network Performance – Alternative 2**

SYSTEM INTERSECTION VOLUME-TO-CAPACITY RATIO

A summary of intersection V/C results for Alternative 2 is shown in **Table 11-29** and mapped in **Figure 11-40**. The table includes all intersections that would not meet their performance target under Alternative 2 along with the V/C ratios expected under the No Action Alternative for comparison. A complete tabular summary is included in Appendix C. Under Alternative 2, the number of System Intersections that would meet their target would fall to 105 of 134 System Intersections (78 percent), a decrease of 16 intersections from the No Action Alternative. Specifically, the number of System Intersections that would meet their target would decrease to 59 of 74 (80 percent) in Type 1 PMAs, 22 of 24 (92 percent) in Type 2 PMAs, and 24 of 36 (67 percent) in the Type 3 PMA.

TABLE 11-29 **Vehicle Network Performance – System Intersections – Alternative 2**

Performance Management Area	Performance Target	% of Intersections That Meet Target	
		No Action	Alternative 2
Type 1 PMA	1.00	91%	80%
Type 2 PMA	0.90	96%	92%
Type 3 PMA	0.85	86%	67%
Total System intersections		***90%***	***78%***

Performance Management Area and Performance Target	Intersections That Would Not Meet Target under Alternative 3	V/C Ratio	
		No Action	Alternative 2
Type 1 PMA (Performance Target = 1.00)	**Bellevue Wy & Main St**	0.97	**1.03**
	112th Ave NE & NE 12th St	0.99	**1.16**
	112th Ave NE & NE 8th St	1.19	**1.38**
	112th Ave & Main St	0.97	**1.09**
	112th Ave NE & NE 10th St	1.08	**1.37**
	116th Ave NE & NE 12th St	1.24	**1.90**
	124th Ave NE & Bel-Red Rd	0.89	**1.09**
	148th Ave NE & NE 20th St	1.01	1.02
	148th Ave NE & Bel-Red Rd	1.10	**1.18**
	148th Ave NE & NE 24th St	0.98	**1.03**
	124th Ave NE & Northup Wy	1.18	**1.38**
	116th Ave NE & NE 8th St	0.82	**1.15**
	116th Ave SE & SE 1st St	1.13	**1.21**
	116th Ave NE & NE 4th St	0.97	**1.27**
	Lk Hills Connector& SE 7th Pl	1.00	**1.17**
Type 2 PMA (Performance Target = 0.90)	**142nd Ave SE & SE 36th St**	0.89	**0.93**
	I-405 SB Ramps & Coal Creek Pkwy	1.14	**1.20**

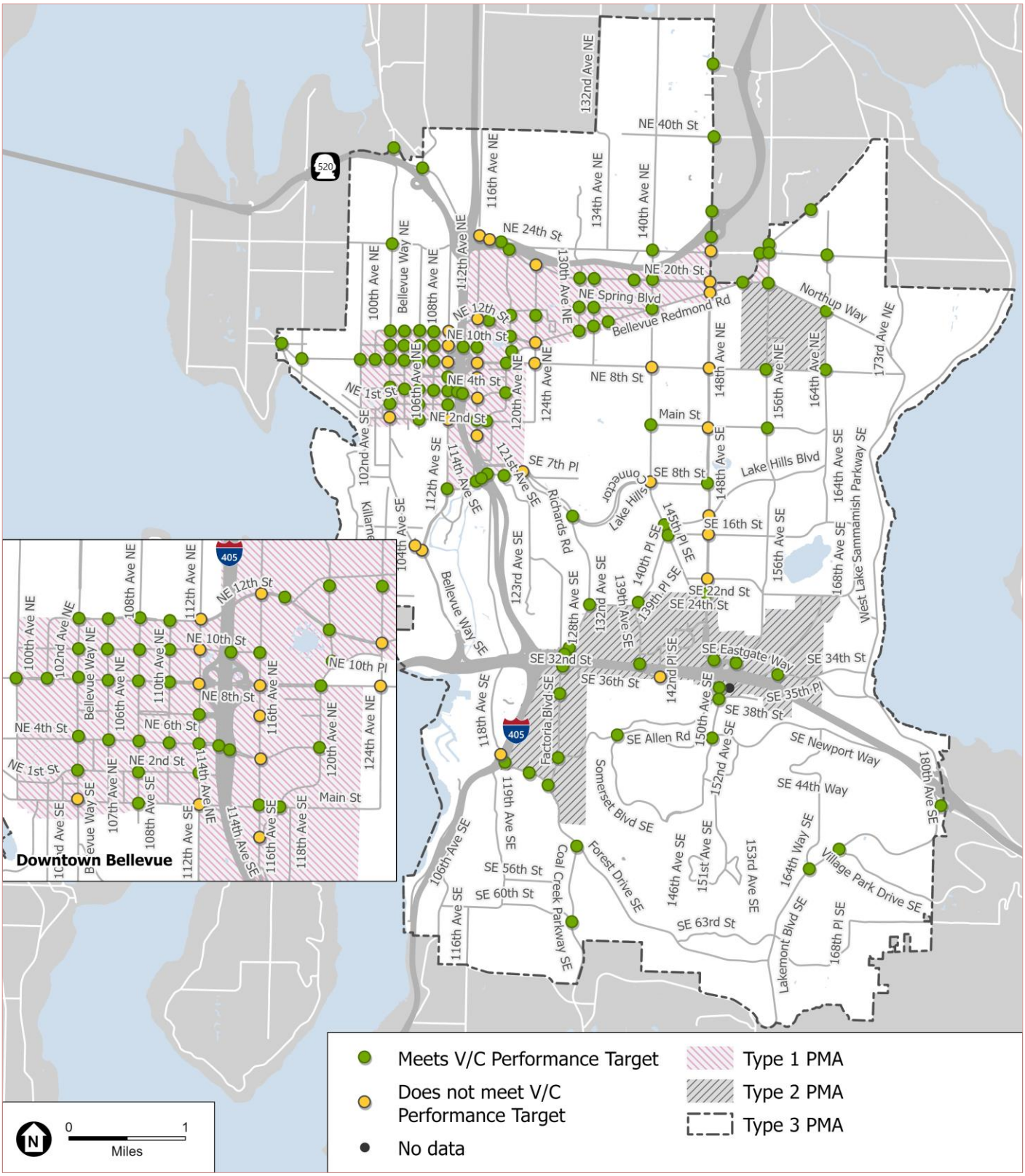
Performance Management Area and Performance Target	Intersections That Would Not Meet Target under Alternative 3	V/C Ratio	
		No Action	Alternative 2
Type 3 PMA (Performance Target = 0.85)	**112th Ave SE & Bellevue Wy SE**	0.98	**1.07**
	124th Ave NE & NE 8th St	0.74	**0.88**
	140th Ave NE & NE 8th St	0.77	**0.86**
	140th Ave SE & SE 8th St	0.85	**0.89**
	148th Ave NE & NE 8th St	0.94	**1.01**
	148th Ave & Main St	0.95	0.99
	148th Ave SE & Lk Hills Blvd	0.85	**0.88**
	148th Ave SE & SE 16th St	0.86	0.89
	116th Ave NE & Northup Wy	0.77	**0.95**
	115th Pl NE & Northup Wy	0.97	**1.02**
	148th Ave SE & SE 22nd St	0.85	**0.91**
	108th Ave SE& Bellevue Way SE	0.77	**0.86**

SOURCE: City of Bellevue 2023

Based on the impact criteria for Action Alternatives, 26 System Intersections would be significantly impacted under Alternative 2 as listed below. These include the 18 intersections that would be impacted under Alternative 1 as well as the following eight additional locations:

- 148th Avenue NE & NE 24th Street
- 142nd Avenue SE & SE 36th Street
- 124th Avenue NE & NE 8th Street
- 140th Avenue NE & NE 8th Street
- 148th Avenue NE & NE 8th Street
- 116th Avenue NE & Northup Way
- 115th Place NE & Northup Way
- 108th Avenue SE & Bellevue Way SE

Impacted System Intersections are **shown in bold** in Table 11-29.



SOURCE: City of Bellevue 2023

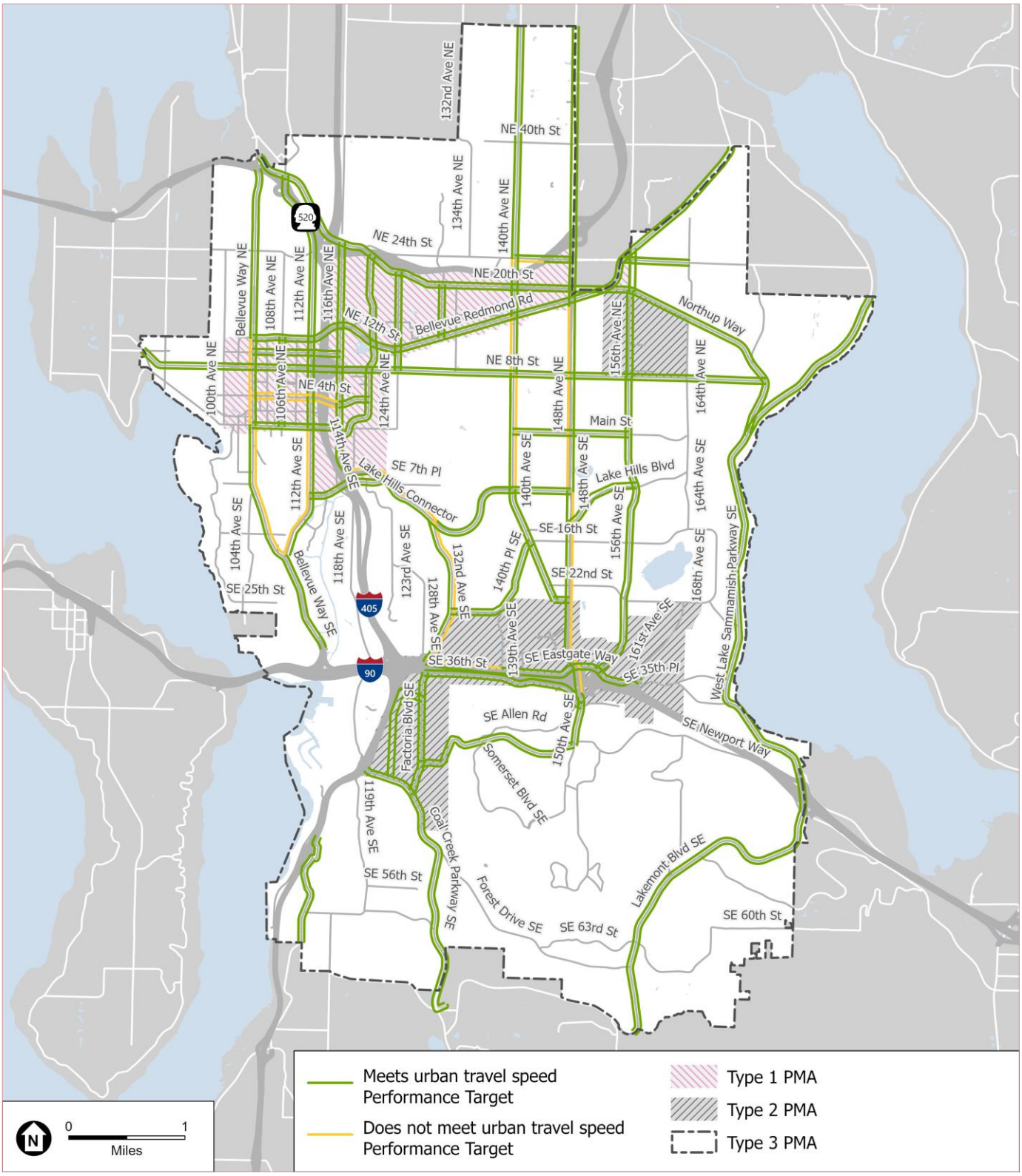
FIGURE 11-40 **System Intersection Performance – Alternative 2**

PRIMARY VEHICLE CORRIDOR TRAVEL SPEED

Primary Vehicle Corridor speed results are shown in **Figure 11-41** and **Table 11-30**. The table lists the corridors that would not meet their performance target under Alternative 2 along with the speeds under both the No Action Alternative and Alternative 2 for comparison. A full tabular summary is included in Appendix C. The same 18 locations (of a total of 95 Primary Vehicle Corridors) that would not meet their performance target under Alternative 1 would also not meet the target under Alternative 2. However, because traffic volume would generally be higher under Alternative 2, the travel speed-to-Typical Urban Travel Speed ratio would degrade to slightly lower levels resulting in several more impacted corridors than under Alternative 1.

The following five Primary Vehicle Corridors would be significantly impacted under Alternative 2:

- Bellevue Way from Main Street to 112th Avenue SE
- 112th Avenue SE from Main Street to SE 8th Street
- Richards Road from Lake Hills Connector to SE 26th Street
- 140th Avenue NE from Bel-Red Road to NE 14th Street
- 148th Avenue from NE 15th Court to NE 8th Street



SOURCE: City of Bellevue 2023

FIGURE 11-41 **Primary Vehicle Corridor Speed – Alternative 2**

TABLE 11-30 **Vehicle Network Performance – Primary Vehicle Corridor Speed – Alternative 2**

Performance Management Area and Performance Target	Corridors That Would Not Meet Performance Target	Speed (miles per hour)	
		No Action	Alt 2
Type 1 PMA (Performance target ≥0.5 Typical Urban Travel Speed)	Bellevue Way – NE 12th St to Main St (SB/WB)	5	5
	112th Ave SE – Main St to SE 8th St (SB/WB)	6	**5**
	140th Ave NE – Bel-Red Rd to NE 14th St (SB/WB)	5	**5**
	NE 4th St – Bellevue Way to 116th Ave NE (NB/EB and SB/WB)	5	5
Type 2 PMA (Performance target ≥0.75 Typical Urban Travel Speed)	148th Ave – SE 24th St to SE 37th St (SB/WB)	7	7
	Eastgate Way – Richards Rd to 139th Ave SE (SB/WB)	10	10
Type 3 PMA (Performance target ≥0.9 Typical Urban Travel Speed)	**Bellevue Way – Main St to 112th Ave SE (SB/WB)**	10	**9**
	112th Ave SE – SE 8th St to Bellevue Way (SB/WB)	6	6
	116th Ave NE/Lk Hills Connector – SE 8th St to Richards Rd (SB/WB)	15	11
	Richards Rd – Lk Hills Connector to SE 26th St (SB/WB)	12	**10**
	Richards Rd – SE 26th St to I-90 (SB/WB)	12	10
	140th Ave NE – NE 24th St to SR 520 (SB/WB)	10	10
	140th Ave NE – NE 14th St to NE 8th St (SB/WB)	5	5
	140th Ave – NE 8th St to SE 8th St (SB/WB)	11	10
	148th Ave – NE 15th Ct to NE 8th St (SB/WB)	12	**11**
	148th Ave – NE 8th St to SE 8th St (SB/WB)	14	12
	148th Ave – SE 8th St to SE 24th St (SB/WB)	9	8
	NE 24th St – 140th Ave NE to SR 520 (NB/EB)	13	12

SOURCE: City of Bellevue 2023

EB = east bound; NB = north bound; SB = southbound; WB = westbound.
NOTE: Spring Boulevard between NE 12th Street and NE 20th Street is a Primary Vehicle Corridor, but data are currently insufficient to project future volumes as it has only recently opened.

STATE FACILITIES

Table 11-31 summarizes projected daily volumes at each of the state facility study locations under Alternative 2. Compared to the No Action Alternative and Alternative 1, Alternative 2 would result in the same or slightly higher volumes on state facilities. The same I-405 study segments impacted under Alternative 1 would be impacted under Alternative 2. In addition, Alternative 2 is expected to cause SR 520 east of I-405 to not meet the maximum LOS D service volume.

TABLE 11-31 **State Facility Performance – Alternative 2**

Study Location	No Action Alternative		Alternative 2	
	AADT	Volume-to-LOS D Maximum Service Volume Ratio	AADT	Volume-to-LOS D Maximum Service Volume Ratio
I-405 north of SR 520	228,000	**1.07**	233,000	**1.09**
I-405 between SR 520 and I-90	238,000	**1.24**	242,000	**1.26**
I-405 south of I-90	181,000	**1.39**	185,000	**1.42**
SR 520 west of I-405	78,000	0.60	85,000	0.65
SR 520 east of I-405	121,000	0.95	129,000	**1.02**
I-90 west of I-405	145,000	0.84	149,000	0.86
I-90 east of I-405	156,000	0.73	160,000	0.75

SOURCE: Fehr & Peers 2023

Based on the impact criteria, four study segments would be significantly impacted by Alternative 2: I-405 north of SR 520, I-405 between SR 520 and I-90, I-405 south of I-90, and SR 520 east of I-405.

WILBURTON STUDY AREA

Primary Vehicle Corridor travel speed and intersection V/C ratio results within the Wilburton study area are shown in **Figure 11-42**. V/C ratio results are summarized in **Table 11-32** and impacted locations are **shown in bold**. The System Intersections and Primary Vehicle Corridors that would not meet their performance target would be similar between Alternatives 1 and 2. The only additional location to not meet its target would be 124th Avenue NE and NE 8th Street. Although that is the only additional location to not meet its target, volume would generally be higher than under Alternative 1 (and the No Action Alternative) so intersection and corridor operations would be more congested.

Seven System Intersections would result in V/C ratios that constitute significant impacts:

- 116th Avenue NE & NE 12th Street
- 124th Avenue NE & Bel-Red Road
- 116th Avenue NE & NE 8th Street
- 116th Avenue NE & SE 1st Street
- 116th Avenue NE & NE 4th Street
- 124th Avenue NE & NE 8th Street
- 116th Avenue NE & NE 6th Street

The impacted locations would include the new NE 6th Street extension's intersection with 116th Avenue NE.

SOURCE: City of Bellevue 2023

FIGURE 11-42 **Primary Vehicle Corridor System Intersection and Speed Performance – Alternative 2 in the Wilburton Study Area Vicinity**

TABLE 11-32 **Wilburton Study Area Vehicle Network Performance – System Intersections – Alternative 2**

Intersection	V/C Ratio	
	No Action	Alternative 2
I-405 SB Ramps & NE 4th St	0.54	0.61
116th Ave NE & NE 12th St	**1.24**	**1.90**
120th Ave NE & NE 12th St	0.77	0.86
124th Ave NE & Bel-Red Rd	0.89	**1.09**
Spring Blvd & NE 12th St	0.49	0.62
120th Ave NE & Bel-Red Rd	0.40	0.42
116th Ave NE & NE 8th St	0.82	**1.15**
116th Ave & Main St	0.79	0.89
116th Ave SE & SE 1st St	**1.13**	**1.21**
116th Ave NE & NE 4th St	0.97	**1.27**
120th Ave NE & NE 8th St	0.70	0.89
116th Ave NE & NE 10th St	0.69	0.88
NE 1st St & Main St	0.60	0.87
120th Ave NE & NE 4th St	0.49	0.53
I-405 NB Ramps & NE 4th St	0.58	0.64
I-405 NB Ramps & NE 10th St	0.61	0.81
124th Ave NE & NE 8th St	0.74	**0.88**
116th Ave NE & NE 6th St	0.75	**1.13**

SOURCE: City of Bellevue 2023

NOTE: All System Intersections within the Wilburton study area have a 1.0 performance target except for 124th Avenue NE/NE 8th Street, which has a 0.85 performance target.

11.5.7 Alternative 3

This section summarizes the model results for Alternative 3 and the impacts expected based on the thresholds of significance stated in Section 11.5.2, *Thresholds of Significance*.

MODE SHARE

Table 11-33 summarizes the mode shares projected under Alternative 3 in comparison to the No Action Alternative. Similar to Alternative 2, Alternative 3 is expected to result in slightly higher walk and SOV shares than the No Action Alternative for both Bellevue workers and residents. Also similar to Alternative 2, the shift among Bellevue workers is due largely to a decrease in the transit share while the shift among Bellevue residents is due largely to a decrease in the HOV mode share.

TABLE 11-33 **Mode Share – Alternative 3**

	Bellevue Workers		Bellevue Residents	
Mode	No Action	Alternative 3	No Action	Alternative 3
Walk	7%	8%	19%	21%
Bicycle	0%	0%	1%	1%
SOV	41%	44%	29%	31%
HOV	19%	19%	40%	34%
Transit	32%	29%	12%	13%

SOURCE: City of Bellevue 2023

NOTE: Mode shares are rounded and may not sum to 100%.

VMT PER CAPITA

Table 11-34 presents the total VMT and VMT per capita under Alternative 3 compared to the No Action Alternative. The BKRCast model projects that total daily VMT would increase to over 4.8 million, an 8 percent increase over the No Action Alternative and higher than both Alternatives 1 and 2. Daily VMT per capita is expected to be approximately 4 miles, or 18 percent, lower than the No Action Alternative at 19.1 miles per day. Alternative 3 daily VMT per capita would be lower than both Alternatives 1 and 2.

TABLE 11-34 **VMT and VMT per Capita – Alternative 3**

	No Action Alternative	Alternative 3
Daily VMT	4,443,000	4,816,000
Daily VMT per Capita	23.2	19.1

SOURCE: City of Bellevue 2023

Because daily VMT per capita is expected to decrease relative to the No Action Alternative, no significant impact on VMT is expected under Alternative 3.

TRANSIT TRAVEL TIME

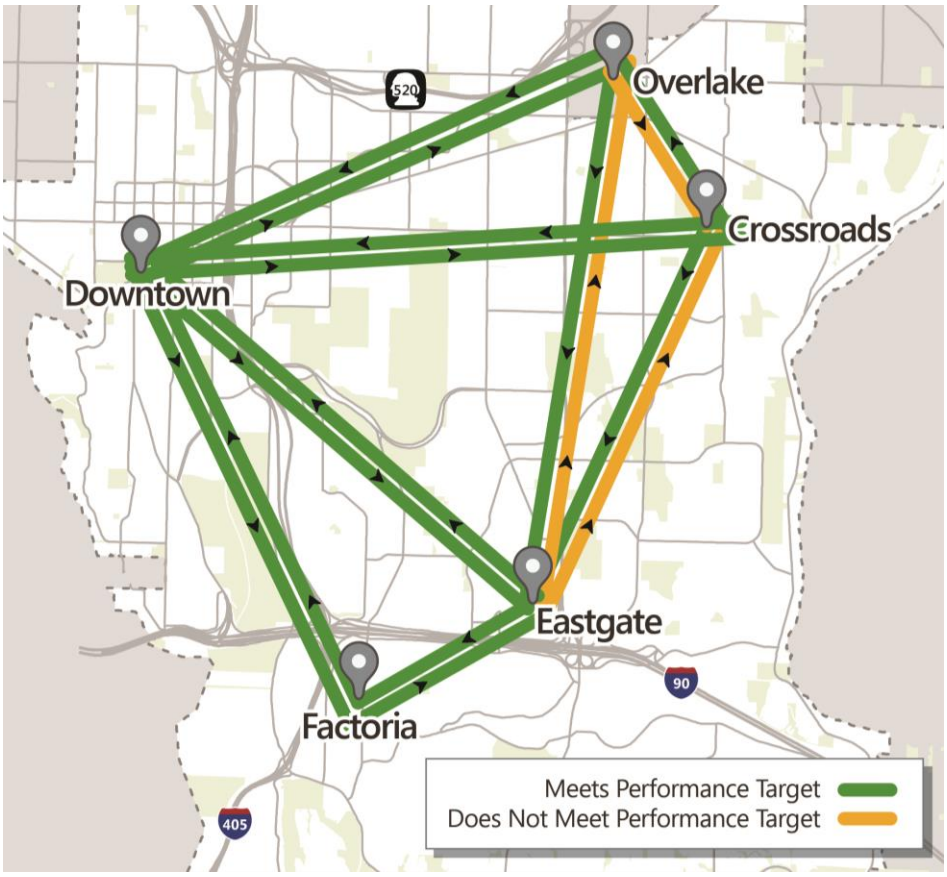
As shown in **Table 11-35** and **Figure 11-43**, two Activity Center pairs are not expected to meet the MIP transit travel time ratio target of 2.0: Eastgate to Crossroads and Eastgate to Overlake. However, as was the case for the other two Action Alternatives, the transit travel time ratios are expected to be lower than under the No Action Alternative, meaning that transit would be a more competitive option given increasing roadway congestion. The transit travel time ratios that would not meet the performance target are **shown in bold**.

TABLE 11-35 **Transit Travel Time Ratio – Alternative 3**

	Downtown	Crossroads	Eastgate	Factoria	Overlake
Downtown	—	1.00	0.90	0.80	0.86
Crossroads	1.75	—	1.72	—	1.63
Eastgate	1.12	**2.10**	—	0.62	**2.23**
Factoria	1.05	—	0.48	—	—
Overlake	0.90	**2.02**	1.87	—	—

SOURCE: City of Bellevue 2023

Because the three Activity Center pairs noted above already would not meet the target under the No Action Alternative and would not meet the threshold of significance relative to the No Action Alternative, no significant impact on transit travel time is identified under Alternative 3.



SOURCE: City of Bellevue 2023

FIGURE 11-43 **Transit Network Performance – Alternative 3**

SYSTEM INTERSECTION VOLUME-TO-CAPACITY RATIO

A summary of intersection V/C results for Alternative 3 is shown in **Table 11-36** and mapped in **Figure 11-44.** The table includes all intersections that would not meet their performance target under Alternative 3 along with the V/C ratios expected under the No Action Alternative for comparison. A complete tabular summary is included in Appendix C.

Under Alternative 3, the number of System Intersections that would not meet their target would fall to 100 of 134 (75 percent), a decrease of 21 intersections from the No Action Alternative. This is the lowest among all future year alternatives. Specifically, the number of System Intersections that would meet their target would decrease to 56 of 74 (76 percent) in Type 1 PMAs, 21 of 24 (88 percent) in Type 2 PMAs, and 23 of 36 (64 percent) in the Type 3 PMA.

TABLE 11-36 **Vehicle Network Performance – System Intersections – Alternative 3**

Performance Management Area	Performance Target	% of Intersections That Would Meet Target	
		No Action	Alternative 3
Type 1 PMA	1.00	91%	76%
Type 2 PMA	0.90	96%	88%
Type 3 PMA	0.85	86%	64%
Total System intersections		***90%***	***75%***
Performance Management Area and Performance Target	**Intersections That Would Not Meet Target under Alternative 3**	**V/C Ratio**	
		No Action	**Alternative 3**
Type 1 PMA (Performance Target = 1.00)	**Bellevue Wy NE & NE 12th St**	0.97	**1.05**
	Bellevue Wy & Main St	0.97	**1.06**
	112th Ave NE & NE 12th St	0.99	**1.21**
	112th Ave NE & NE 8th St	1.19	**1.41**
	112th Ave & Main St	0.97	**1.11**
	112th Ave NE & NE 10th St	1.08	**1.38**
	116th Ave NE & NE 12th St	1.24	**1.97**
	124th Ave NE & Bel-Red Rd	0.89	**1.15**
	140th Ave NE & Bel-Red Rd	0.85	**1.04**
	148th Ave NE & NE 20th St	1.01	**1.07**
	148th Ave NE & Bel-Red Rd	1.10	**1.25**
	148th Ave NE & NE 24th St	0.98	**1.10**
	124th Ave NE & Northup Wy	1.18	**1.48**
	116th Ave NE & NE 8th St	0.82	**1.23**
	118th Ave SE & SE 8th St	0.86	**1.01**
	116th Ave SE & SE 1st St	1.13	**1.25**
	116th Ave NE & NE 4th St	0.97	**1.37**
	Lk Hills Connector& SE 7th Pl	1.00	**1.21**
Type 2 PMA (Performance Target = 0.90)	**142nd Ave SE & SE 36th St**	0.89	**1.01**
	Factoria Blvd SE & SE 36th St (I-90 EB Off-ramp)	0.78	**0.91**
	I-405 SB Ramps & Coal Creek Pkwy	1.14	**1.24**

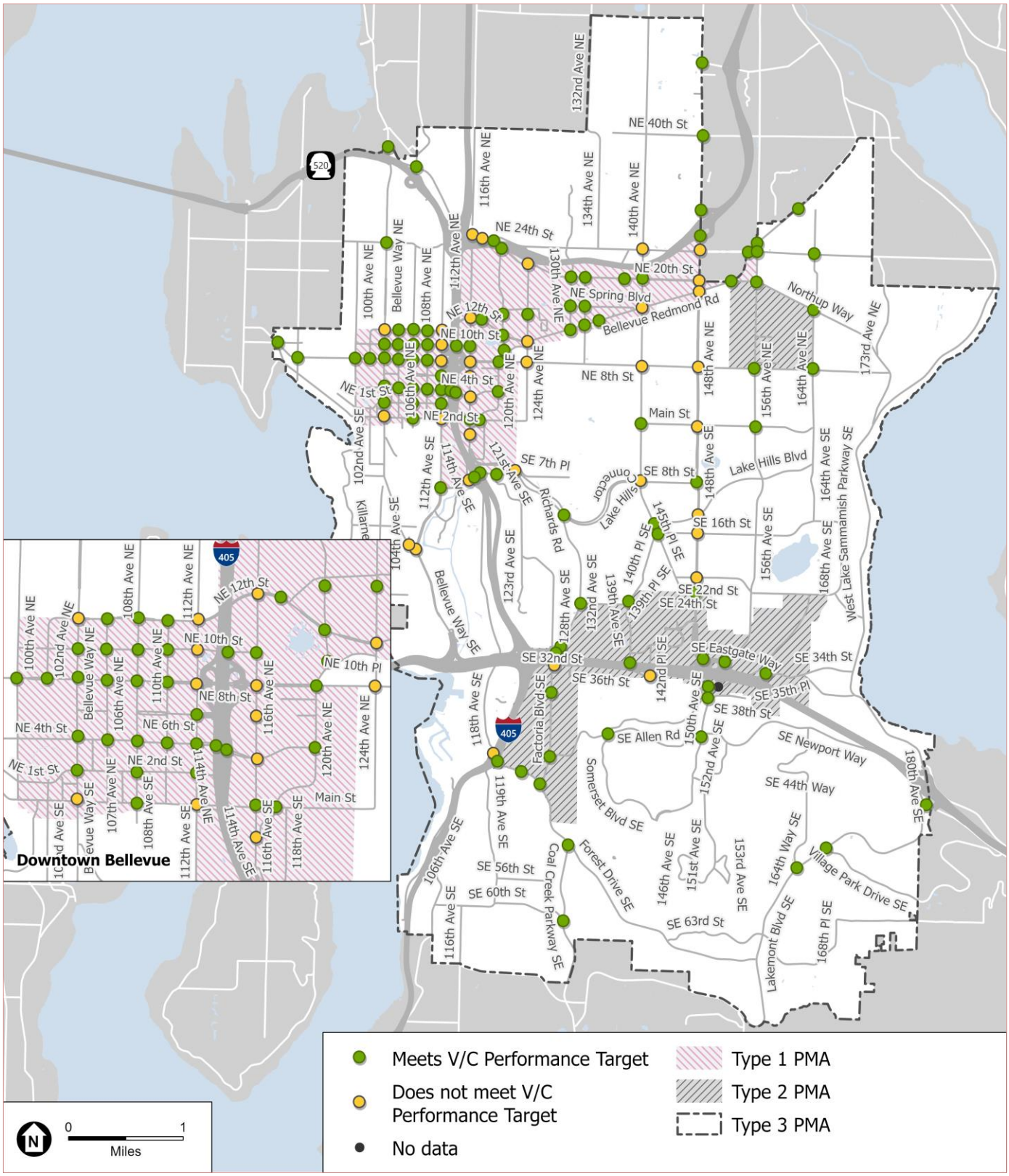
Performance Management Area and Performance Target	Intersections That Would Not Meet Target under Alternative 3	V/C Ratio	
		No Action	Alternative 3
Type 3 PMA (Performance Target = 0.85)	**112th Ave SE & Bellevue Wy SE**	0.98	**1.08**
	124th Ave NE & NE 8th St	0.74	**0.91**
	140th Ave NE & NE 8th St	0.77	**0.92**
	140th Ave SE & SE 8th St	0.85	**0.91**
	148th Ave NE & NE 8th St	0.94	**1.05**
	148th Ave & Main St	0.95	**1.02**
	148th Ave SE & Lk Hills Blvd	0.85	**0.88**
	148th Ave SE & SE 16th St	0.86	0.90
	140th Ave NE & NE 24th St	0.74	**0.96**
	116th Ave NE & Northup Wy	0.77	**0.97**
	115th Pl NE & Northup Wy	0.97	**1.09**
	148th Ave SE & SE 22nd St	0.85	**0.98**
	108th Ave SE& Bellevue Way SE	0.77	**0.90**

SOURCE: City of Bellevue 2023

Based on the impact criteria for Action Alternatives, 33 System Intersections would be significantly impacted under Alternative 3 as listed below. These include all the intersections impacted under Alternatives 1 and 2 as well as additional locations (15 additional locations relative to Alternative 1 and seven additional locations relative to Alternative 2). The seven locations that would only be impacted under Alternative 3 include:

- Bellevue Way NE & NE 12th Street
- 140th Avenue NE & Bel-Red Road
- 148th Avenue NE & Bel-Red Road
- 118th Avenue SE & SE 8th Street
- Factoria Boulevard SE & SE 36th Street (I-90 east-bound off-ramp)
- 148th Avenue & Main Street
- 140th Avenue NE & NE 24th Street

Impacted System Intersections are **shown in bold** in Table 11-36.



SOURCE: City of Bellevue 2023

FIGURE 11-44 **System Intersection Performance – Alternative 3**

PRIMARY VEHICLE CORRIDOR TRAVEL SPEED

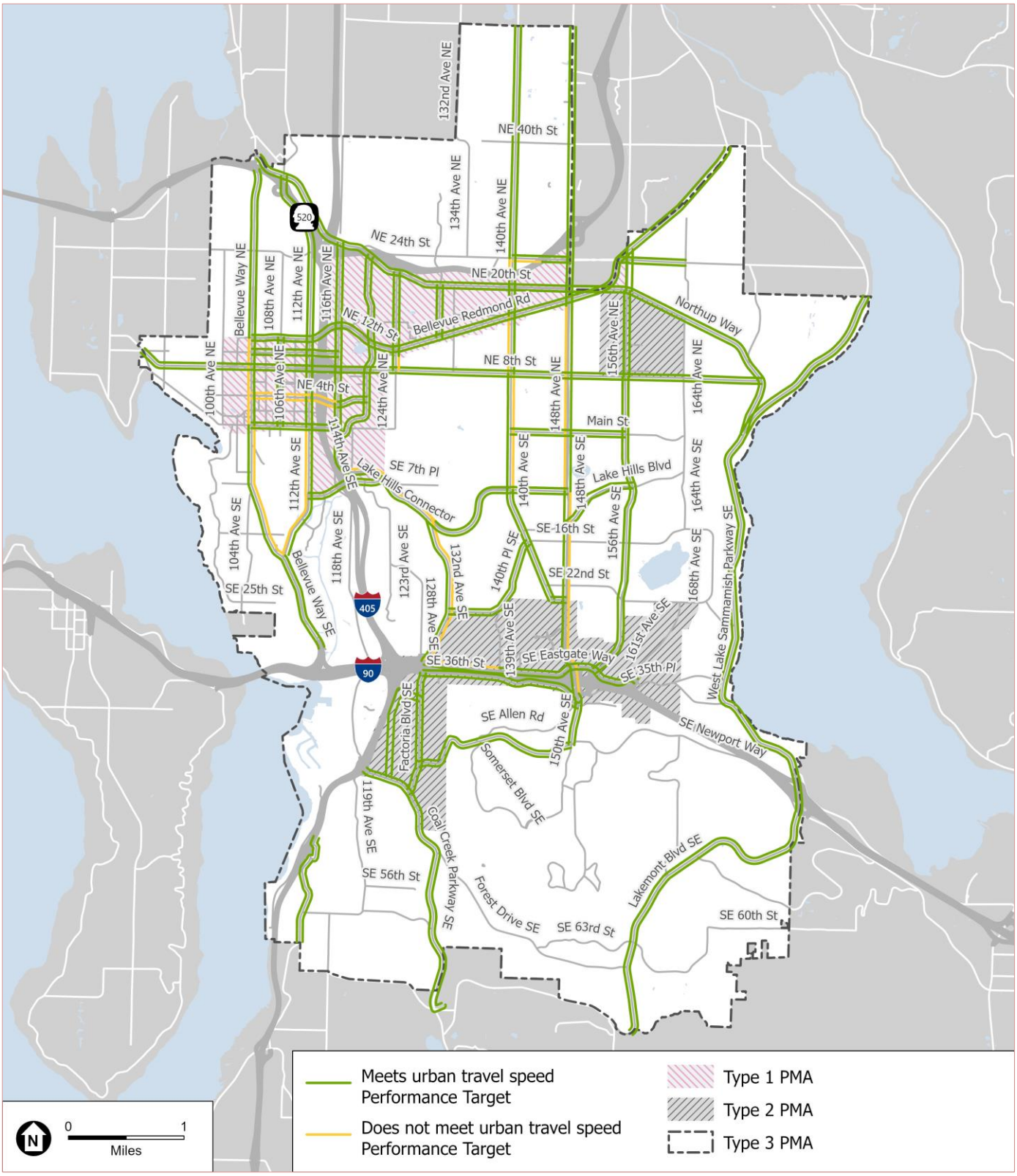
Primary Vehicle Corridor speed results are shown in **Figure 11-45** and **Table 11-37**. The table lists the corridors that would not meet their performance target under Alternative 3 along with the speed under both the No Action Alternative and Alternative 3 for comparison. A full tabular summary is included in Appendix C.

TABLE 11-37 **Vehicle Network Performance – Primary Vehicle Corridor Speed – Alternative 3**

Performance Management Area and Performance Target	Corridors That Would Not Meet Performance Target	Speed (miles per hour)	
		No Action	Alternative 3
Type 1 PMA (Performance target ≥0.5 Typical Urban Travel Speed)	Bellevue Way – NE 12th St to Main St (SB/WB)	5	5
	112th Ave SE – Main St to SE 8th St (SB/WB)	6	**4**
	140th Ave NE – Bel-Red Rd to NE 14th St (SB/WB)	5	**4**
	NE 4th St – Bellevue Way to 116th Ave NE (NB/EB and SB/WB)	5	5
Type 2 PMA (Performance target ≥0.75 Typical Urban Travel Speed)	148th Ave – SE 24th St to SE 37th St (SB/WB)	7	6
	Eastgate Way – Richards Rd to 139th Ave SE (SB/WB)	10	9
	Richards Rd – SE 26th St to I-90 (SB/WB)	12	10
Type 3 PMA (Performance target ≥0.9 Typical Urban Travel Speed)	**Bellevue Way – Main St to 112th Ave SE (SB/WB)**	10	**9**
	112th Ave SE – SE 8th St to Bellevue Way (SB/WB)	6	6
	116th Ave NE/Lk Hills Connector – SE 8th St to Richards Rd (SB/WB)	15	10
	Richards Rd – Lk Hills Connector to SE 26th St (SB/WB)	12	**10**
	140th Ave NE – NE 24th St to SR 520 (SB/WB)	10	9
	140th Ave NE – NE 14th St to NE 8th St (SB/WB)	5	**4**
	140th Ave – NE 8th St to SE 8th St (SB/WB)	11	9
	148th Ave – NE 15th Ct to NE 8th St (SB/WB)	12	**10**
	148th Ave – NE 8th St to SE 8th St (SB/WB)	14	11
	148th Ave – SE 8th St to SE 24th St (SB/WB)	9	8
	NE 24th St – 140th Ave NE to SR 520 (NB/EB)	13	**11**
	124th Ave NE – NE 10th Pl to NE 8th St (NB/EB)	15	10

SOURCE: City of Bellevue 2023

EB = east bound; NB = north bound; SB = southbound; WB = westbound.
NOTE: Spring Boulevard between NE 12th Street and NE 20th Street is a Primary Vehicle Corridor, but data are currently insufficient to project future volumes as it has only recently opened.



SOURCE: City of Bellevue 2023

FIGURE 11-45 **Primary Vehicle Corridor Speed – Alternative 3**

The 18 corridors that would not meet their performance target under Alternatives 1 and 2 would also not meet the target under Alternative 3. In addition, 124th Avenue NE from NE 10th Place to NE 8th Street would also not meet its performance target. Therefore, in total, 19 of the 95 Primary Vehicle Corridors would not meet their performance target under Alternative 3. Because traffic volume is expected to be highest under Alternative 3, corridor speed is expected to be lowest among the alternatives.

The following seven Primary Vehicle Corridors (**shown in bold** in Table 11-37) would be significantly impacted under Alternative 3.

- Bellevue Way from Main Street to 112th Avenue SE
- 112th Avenue SE from Main Street to SE 8th Street
- Richards Road from Lake Hills Connector to SE 26th Street
- 140th Avenue NE from Bel-Red Road to NE 14th Street
- 140th Avenue NE from NE 14th Street to NE 8th Street
- 148th Avenue from NE 15th Court to NE 8th Street
- NE 24th Street from 140th Avenue NE to SR 520

STATE FACILITIES

Table 11-38 summarizes projected daily volumes at each of the state facility study locations under Alternative 3. Alternative 3 would result in the highest volumes on state facilities among the alternatives. The four study segments that would not meet the LOS D standard under Alternative 2 would also not meet the standard under Alternative 3 and at slightly higher volumes.

Based on the impact criteria, four study segments would be significantly impacted by Alternative 3: I-405 north of SR 520, I-405 between SR 520 and I-90, I-405 south of I-90, and SR 520 east of I-405.

TABLE 11-38 **State Facility Performance – Alternative 3**

Study Location	No Action Alternative		Alternative 3	
	AADT	Volume-to-LOS D Maximum Service Volume Ratio	AADT	Volume-to-LOS D Maximum Service Volume Ratio
I-405 north of SR 520	228,000	**1.07**	235,000	**1.10**
I-405 between SR 520 and I-90	238,000	**1.24**	244,000	**1.27**
I-405 south of I-90	181,000	**1.39**	186,000	**1.44**
SR 520 west of I-405	78,000	0.60	86,000	0.66
SR 520 east of I-405	121,000	0.95	132,000	**1.04**
I-90 west of I-405	145,000	0.84	150,000	0.87
I-90 east of I-405	156,000	0.73	161,000	0.76

SOURCE: Fehr & Peers 2023

WILBURTON STUDY AREA

Alternative 3 would include the greatest capacity for growth in the Wilburton study area among the Action Alternatives. Therefore, it is projected to result in higher vehicle volume than the No Action Alternative and the other two Action Alternatives. Alternative 3 was evaluated using two different networks in the Wilburton study area:

- **Alternative 3**: NE 6th Street extension built to 116th Avenue NE (consistent with the assumptions for the other future year alternatives).
- **Alternative 3A:** NE 6th Street extension built farther east to 120th Avenue NE with an at-grade intersection at 116th Avenue NE and with Eastrail.

Extending NE 6th Street to 120th Avenue NE would require an additional trail crossing of Eastrail, which would degrade the experience for those using the trail. Creating an additional trail crossing also introduces a new modal conflict point between vehicles and vulnerable users (e.g., pedestrians and bicyclists) that would not exist under the No Action Alternative. This increased exposure could result in a potential safety impact at that location. In addition, the longer NE 6th Street extension would have more property impacts than an extension terminating at 116th Avenue NE.

Primary Vehicle Corridor travel speed and System Intersection V/C ratio results within the Wilburton study area are shown in **Figure 11-46** for Alternative 3 and **Figure 11-47** for Alternative 3A. V/C ratio results for both Alternatives 3 and 3A are summarized in **Table 11-39,** and impacted locations are **shown in bold.**

The sets of System Intersections and Primary Vehicle Corridors that would not meet their performance targets would be almost identical between Alternative 3 and 3A. The only difference is that 124th Avenue NE between NE 8th Street and NE 10th Place would not meet its performance target in only the northbound direction under Alternative 3, but not meet the target in both directions under Alternative 3A. The impact findings related to Primary Vehicle Corridor travel speed would be the same between Alternatives 3 and 3A. The follow System Intersections would be significantly impacted under both Alternatives 3 and 3A:

- 116th Avenue NE & NE 12th Street
- 124th Avenue NE & Bel-Red Road
- 116th Avenue NE & NE 8th Street
- 116th Avenue NE & SE 1st Street
- 116th Avenue NE & NE 4th Street
- 124th Avenue NE & NE 8th Street
- 116th Avenue NE & NE 6th Street

Although the same set of intersections would be impacted under Alternatives 3 and 3A, the V/C ratios would vary. The variation between the two network scenarios is generally small – no more than 0.05 except for 116th Avenue NE & NE 8th Street, which would have a V/C ratio 0.17 higher under Alternative 3A than under Alternative 3. In other words, extending NE 6th Street to 120th Avenue NE rather than 116th Avenue NE does not appear to materially alleviate congestion on NE 8th Street or NE 4th Street.

SOURCE: City of Bellevue 2023

FIGURE 11-46 **Primary Vehicle Corridor System Intersection and Speed Performance – Alternative 3 in the Wilburton Study Area Vicinity**

SOURCE: City of Bellevue 2023

FIGURE 11-47 **Primary Vehicle Corridor System Intersection and Speed Performance – Alternative 3A in the Wilburton Study Area Vicinity**

TABLE 11-39 **Wilburton Study Area Vehicle Network Performance – System Intersections – Alternatives 3 and 3A**

Intersection	V/C Ratio		
	No Action	Alt 3	Alt 3A
I-405 SB Ramps & NE 4th St	0.54	0.60	0.61
116th Ave NE & NE 12th St	**1.24**	**1.97**	**1.93**
120th Ave NE & NE 12th St	0.77	0.89	0.89
124th Ave NE & Bel-Red Rd	0.89	**1.15**	**1.12**
Spring Blvd & NE 12th St	0.49	0.70	0.68
120th Ave NE & Bel-Red Rd	0.40	0.46	0.47
116th Ave NE & NE 8th St	0.82	**1.23**	**1.40**
116th Ave & Main St	0.79	0.92	0.94
116th Ave SE & SE 1st St	**1.13**	**1.25**	**1.25**
116th Ave NE & NE 4th St	0.97	**1.37**	**1.36**
120th Ave NE & NE 8th St	0.70	0.94	0.90
116th Ave NE & NE 10th St	0.69	0.88	0.88
NE 1st St & Main St	0.60	0.98	0.91
120th Ave NE & NE 4th St	0.49	0.56	0.62
I-405 NB Ramps & NE 4th St	0.58	0.65	0.67
I-405 NB Ramps & NE 10th St	0.61	0.84	0.84
124th Ave NE & NE 8th St	0.74	**0.91**	**0.92**
116th Ave NE & NE 6th St	0.75	**1.11**	**1.16**
120th Ave NE & NE 6th St	N/A	N/A	0.93

SOURCE: City of Bellevue 2023

NOTE: All System Intersections within the Wilburton study area have a 1.0 performance target except for 124th Avenue NE/NE 8th Street, which has a 0.85 performance target.

11.5.8 Summary of Impacts

Table 11-40 summarizes the impact findings across the alternatives. The purpose of this programmatic EIS is to disclose how potential land use and land use designation actions by the City Council may impact the transportation system relative to what would occur with currently adopted land use designations and policies (in other words, the No Action Alternative). Therefore, the impacts of each Action Alternative under consideration are assessed against the

performance of the No Action Alternative. The impacts that are expected to occur as a result of the No Action Alternative are also expected under the Action Alternatives even if those alternatives would not result in additional significant impacts.

TABLE 11-40 **Summary of No Action Impacts and Significant Impacts Resulting from Action Alternatives**

Impact Type	No Action Alternative	Alternative 1	Alternative 2	Alternative 3
Pedestrian Network System Completeness	None	None	None	None
Bicycle Network System Completeness	None	None	None	None
Transit Network System Completeness	None	None	None	None
Safety	None	None	None	None
Parking	None	None	None	None
VMT Per Capita	None	None	None	None
Transit Travel Time	3 of 16 Activity Center pairs	None	None	None
Intersection V/C	13 of 134 System Intersections	18 of 134 System Intersections	26 of 134 System Intersections	33 of 134 System Intersections
Primary Vehicle Corridor Travel Speed	14 of 95 Primary Vehicle Corridors	2 of 95 Primary Vehicle Corridors	5 of 95 Primary Vehicle Corridors	7 of 95 Primary Vehicle Corridors
State Facilities	3 of 7 study segments	3 of 7 study segments	4 of 7 study segments	4 of 7 study segments

SOURCE: Fehr & Peers 2023

All Action Alternatives are expected to have significant impacts on System Intersection V/C, Primary Vehicle Corridor travel speed, and state facilities based on the thresholds for significance identified in this EIS. Among the Action Alternatives, the magnitude of impacts would generally be lowest for Alternative 1 and highest for Alternative 3.

Although the focus of the EIS is on mitigating conditions of the Action Alternatives rather than the current land use, policy, and adopted code (i.e., No Action), many of the mitigation measures proposed for the Action Alternatives would also reduce impacts under the No Action Alternative. These mitigation measures are discussed in the next section.

11.6 Avoidance, Minimization, and Mitigation Measures

This section identifies a range of potential mitigation strategies that could be implemented to reduce the significance of the adverse impacts identified for Alternatives 1, 2, and 3 in the previous section. These include impacts on System Intersection V/C ratios, Primary Vehicle Corridor speed, and state facility LOS.

As noted previously in this EIS, the transportation system analysis is based on the BKRCast travel demand model and analyzes growth to "build-out" capacity. Assumptions for future year land use and the transportation network are embedded into the model, as are assumptions related to factors such as parking cost, regional tolling, and energy prices. Because it is based on a set of assumptions that are likely to change over time, BKRCast is a tool best used to compare the relative differences among alternatives rather than to provide a precise prediction of future travel behavior. As such, this section describes the types of mitigation measures that could be pursued to reduce the expected impacts. As development occurs, Bellevue will determine the specific capital and programmatic improvements best suited to address the conditions that materialize. Capital projects will be identified in the Transportation Facilities Plan, a fiscally constrained plan prioritizing project needs over the subsequent 12-year period; the Transportation Facilities Plan is updated every two to three years.

A spectrum of impacts on System Intersection V/C ratio, Primary Vehicle Corridor speed, and state facilities were identified in the impact analysis. Among the alternatives studied, Alternative 3 is expected to result in the highest number and magnitude of impacted locations, while the No Action Alternative is expected to result in the lowest number and magnitude of impacts (with Alternatives 1 and 2 falling in between). While the preceding section identifies specific transportation facilities that may be impacted, the precise magnitude of these impacts cannot be known with certainty at this time. Rather, Bellevue would continue to monitor the transportation system performance over time as growth occurs and assumptions change (or become realities) and consider the best way to address impacts that are expected to arise.

It is also important to note that, for analysis purposes, the BKRCast modeling assumes growth at the build-out capacity of the land in Bellevue. This is a very conservative assumption that may indicate adverse impacts on the transportation that may not occur by the

2044 horizon year of this plan, as it takes time for properties to redevelop, and many properties are not built to the maximum capacity allowed.

Given the uncertainties with respect to land development and redevelopment and the transportation network, the mitigation measures and strategies identified in this EIS are programmatic in nature (e.g., they do not specify exact details, design, and performance outcome of a capital improvement at an intersection). Instead, the approach to mitigation first includes a process outlined in the Mobility Implementation Plan. The city may then determine interventions to reduce the magnitude of any transportation impacts, noting that any intervention may not reduce the impact to a level that is less-than-significant as defined herein. Potential mitigation measures and strategies may also be informed by several adopted transportation plans, programs, and strategies that can be combined to effectively address multimodal transportation impacts. These plans, programs, and approaches include:

- Transportation Demand Management Strategies
- Transportation Systems Operations and Management
- Agency Partnerships
- Parking Strategies
- Safety Strategies

11.6.1 Mobility Implementation Plan

The MIP outlines Bellevue's prioritization system to weigh needs across all modes such that transportation investments are aligned with the land use vision set out in the Comprehensive Plan. The MIP is a useful framework by which to identify potential mitigation measures because it recognizes that different areas of the city call for different approaches to addressing performance target gaps. Adapting the MIP to a mitigation identification and prioritization framework for this EIS results in two primary steps, listed below:

1. **Identify Performance Target Gaps**

   The first step of the MIP is to identify locations where transportation system performance does not meet expectations—performance target gaps. This EIS has identified performance target gaps for Alternatives 1, 2, and 3 related to the vehicle mode.

2. **Screen Performance Target Gaps – MIP Goals**

   Performance target gaps are next screened for alignment with the four goals of the MIP: Support Growth, Improve Safety, Consider Equity, and Improve Access and Mobility.

The MIP also includes two other steps that do not specifically apply to the programmatic mitigation measures identified in this plan but are important in identifying and implementing specific mitigation measures. These final two steps would be triggered as development occurs and more detailed transportation impact analyses are conducted as part of individual projects:

3. **Develop Project Concepts**

   For those performance target gaps with higher prioritization scores, staff would develop initial project concepts to improve performance target results. However, as noted above, it will not always be possible to fully meet each performance target. Project concepts will be developed and reviewed in the context of the four MIP goals as well as other performance factors such as environmental sustainability and livability.

4. **Screen for Funding and Implementation**

   The final step of the MIP is to inform the development of the Transportation Facilities Plan (TFP) based on the outcomes of Steps 1 through 3. Bellevue staff will deliver a prioritized list of project concepts for consideration in the TFP update process along with contextual information describing how each project concept would address performance target gaps, support MIP goals and other factors, and respond to community input.

   Bellevue also extensively partners with private development to address performance target gaps as mitigation for development-related impacts, particularly for those gaps that are immediately adjacent to a development. The MIP Implementation Guide outlines the process to determine whether project concepts are implemented through the TFP or through developer mitigation.

   As stated above, the MIP is also used in conjunction with the development and administration of the city's codes, standards, and regulations, including the Multimodal Concurrency Code (Chapter 14.10 Bellevue City Code [BCC]), Transportation Design Manual requirements, and Transportation Impact Fee Program (chapter 22.16 BCC) to ensure that the performance and capacity of the city's transportation system accommodate anticipated growth. Many of the impacts identified herein are to be expected as the city continues to grow and the transportation network

evolves with that growth. Although this programmatic EIS does not specifically analyze project-level level impacts, it is anticipated that the development of the city's codes, standards, and regulations will continue to be informed by the MIP, and the application of updated codes, standards, and regulations will continue to provide development-specific and project-level mitigation measures in connection with development proposed during the 20-year planning period.

The MIP prioritization framework will guide Bellevue's programmatic approach in this Draft EIS to identify potential mitigations and strategies for capital and operational investments in the transportation network to address performance target gaps (e.g., System Intersection V/C and Primary Vehicle Corridor speed) as well as investments that do not directly address an impact, but provide for more options and transportation capacity to support growth (e.g., continuing to build out the pedestrian and bicycle networks to address performance target gaps in those modes). As noted in the MIP, Bellevue will continue to invest in its multimodal network over time and there will likely be performance target gaps in the future. Some of these gaps are a result of the time it takes to build a complete network, and some gaps (particularly related to System Intersections and Primary Vehicle Corridors) will remain because reducing intersection congestion and increasing vehicle speeds must be balanced against priories including safety, environmental stewardship, land use impacts, etc.

11.6.2 Transportation Demand Management Strategies

Bellevue promotes a variety of transportation demand management (TDM) strategies to encourage travel by carpooling, vanpooling, transit, walking, and biking, as well as to reduce trips by promoting teleworking. These types of measures can contribute to mitigating performance target impacts related to traffic congestion including System Intersection V/C ratios and Primary Vehicle Corridor speed, as well as to state facility LOS, transit travel time ratios, and parking. The degree to which TDM strategies can mitigate traffic congestion impacts depends on the types of strategies and how aggressively they are implemented as well as the context of the impacted location, for example, location, other available mobility options, and magnitude of the impact relative to the performance target.

Bellevue maintains a travel options website, ChooseYourWayBellevue.org, which provides transportation information and resources, such as personalized commute assistance and travel rewards, to the community. TDM activities focus on employers, employees, property managers, residents, students, and visitors to maximize the efficiency of the existing transportation system and limit the effects of traffic on Bellevue neighborhoods. Bellevue published a TDM Plan in 2015 to guide its TDM strategies and implementation through 2023; a new plan will be initiated, in consultation with the Transportation Commission, in late 2023, for the period 2023–2031. Key strategies of the 2015 TDM Plan include:

- Requirement–based programs, including Commute Trip Reduction employer-based programs and Transportation Management Programs for large developments.
- Product subsidies and discounts, including transportation benefit rebates, transportation mini-grants, and emergency ride home.
- Education and assistance, including commute program consulting services, program expert consulting services, real-time and longer term travel information assistance, rideshare and ridematch promotion, and school programs aimed at K–12 students and their parents.
- Incentives and rewards, including trip logging and rewards programs, commute challenges, and parking cashout.
- Marketing and promotions of TDM strategies, the Choose Your Way Bellevue website, carsharing, recognition programs, and email newsletters.
- Research, planning, and internal and external coordination to explore new TDM approaches and program opportunities.

With the upcoming update to the TDM Plan, Bellevue has an opportunity to leverage new transportation investments, such as East Link light rail, to support the community in adopting new travel behaviors that can reduce impacts on the transportation system.

TDM-supportive policies are also outlined in the Comprehensive Plan along with related planning and implementation activities, including the Environmental Stewardship Initiative Strategic Plan 2021–2025, the Transit Master Plan (2014), the Pedestrian and Bicycle Implementation Initiative, the 2009 Pedestrian and Bicycle Transportation Plan, Downtown Transportation Plan, and the Economic Development Plan (2020).

Transportation Management Programs (TMPs) are required by Bellevue City Code (BCC Section 14.60.070) for property owners of large development projects. The programs are designed to encourage tenant employees to reduce commute trips and therefore the resulting vehicle traffic and parking impacts.

In addition to city programs, TransManage, a Transportation Management Association (TMA) operated by the Bellevue Downtown Association, works with property managers, employers, and businesses in the Downtown core and greater Eastside to promote non-drive alone commutes.

At the state level, the Washington State Commute Trip Reduction (CTR) Law, passed in 1991, requires large employers to implement employee commute programs to reduce drive-alone peak-hour commute trips, with the goals of reducing traffic congestion and energy use, and improving air quality. The CTR Law applies to employer worksites with at least 100 employees who begin work between 6 a.m. and 9 a.m. on weekdays. Employers who meet this threshold must develop commute trip reduction plans and work toward meeting their mode share targets through internal programs and monitoring. Affected employers must:

- Designate a transportation coordinator.
- Distribute information about non-drive alone commute options to employees.
- Survey employees every other year to measure VMT and mode choice.
- Implement measures designed to achieve CTR goals adopted by the jurisdiction in which they are located.

The CTR program is currently undergoing a shift in the funding allocation and approach to better meet employer and jurisdictional needs and increase the effectiveness of the program. The changes in the CTR program present an opportunity for Bellevue to reevaluate the city's TDM programs and implement new strategies to improve employer-focused TDM efforts. For instance, both the CTR and TMP programs are currently for large employment sites. Given the levels of growth considered in this EIS, Bellevue could consider adapting previous programs or developing new programs tailored to smaller employers, residential buildings, or trips for non-work purposes, such as recreation or shopping, to reach a broader population and further reduce drive alone travel.

The Land Use–Transportation Connection

While specific transportation projects and services can improve mobility and address performance target gaps, the interconnection between land use and transportation is critical to consider in the context of this EIS. The intensity, mix, and location of land uses have a strong effect on transportation system demand, not only in terms of the number of trips that are generated, but on the mode of travel people choose to take.

This pattern is reflected in both historic data and the modeling performed for this EIS. For example, based on data from the Commute Trip Reduction program, since 1995, drive-alone mode share for commuting trips in Downtown Bellevue has decreased from 67 to 45 percent.

In terms of the EIS modeling, the increasingly intense land development potential of Alternatives 1 through 3, which concentrate development density near frequent transit and areas with robust pedestrian and bicycle infrastructure, also result in higher mode shares for walking, bicycling, and transit.

In general, the land use strategies explored in Alternatives 1 through 3 will reduce reliance on cars and better leverage Bellevue's walking, bicycling, and transit networks, as these modes can move more people in less space and with fewer overall environmental impacts. Therefore, the growth alternatives have inherent transportation benefits compared to the No Action Alternative.

Research by the California Air Pollution Control Officers Association (CAPCOA) has demonstrated that implementation of TDM strategies can measurably reduce vehicle trips, potentially mitigating the Action Alternatives' impacts related to traffic congestion and parking. Additional new or expanded TDM measures could include:

- Encourage or require development to implement specific TDM strategies outside of those already required, such as shuttle programs between different buildings or park-and-ride lots.
- Review the parking minimums and maximums currently in place for possible revisions to help meet or exceed mode-share goals.
- Encourage or require developers to unbundle parking to separate parking costs from the cost of buying or renting a property; prohibit the sale of monthly commercial parking permits (all non-residential parking is priced at a daily rate).

- Expand subsidized transit pass programs, including residential developments.
- Expand trip reduction programs to include new participants such as smaller businesses, multi-family residential properties, or community members at large.
- Improve bicycle and pedestrian facilities, including last-mile connections and end of trip facilities such as bicycle parking.
- Support micromobility programs such as shared micromobility (e.g., bike share, other shared mobility devices).

Expanding TDM programs as described above, combined with Bellevue's planned improvements to the pedestrian and bicycle network and increased density, could further reduce vehicle trips and help mitigate the impacts of the Action Alternatives. Specifically, an analysis of CAPCOA data[3] suggests a vehicle trip reduction range of 5–10 percent for the above TDM programs. This reduction would be in addition to the vehicle trip reductions already gained by Bellevue's existing TDM requirements.

11.6.3 Smart Mobility

In addition to mitigating impacts through expanding capacity and reducing demand on the system, Bellevue continually works to gain more efficiency out of the existing system. Smart Mobility refers to strategies that optimize the existing multimodal transportation system by implementing improvements that support operations, traveler information, mobility services, and maintenance. The integration of technology in support of these areas allows agencies to maximize the performance of existing facilities without adding capacity. Smart Mobility solutions can also improve safety and provide flexibility to address changing conditions, such as traffic congestion. Smart Mobility strategies can prioritize movement of specific modes, including active transportation, transit, and freight. Coordination across agencies and integration of various modes allow the entire system to achieve greater overall performance. Bellevue's 2018 *Smart Mobility Plan* highlights many of the initiatives that have been deployed or are being developed to improve the performance of our multimodal transportation system.

Bellevue's Smart Mobility program is an important tool to mitigate impacts associated with traffic congestion, construction, delivery, and parking through the efficient management of our transportation

[3] https://www.caleemod.com/handbook/full_handbook.html

system. Potential Smart Mobility strategies that Bellevue might consider include:

- In-vehicle information about the presence of vulnerable road users such as people on bicycles and walking and notifications about posted speeds, speed warnings, and activation of rectangular rapid flashing beacons.
- Wayfinding in vehicles and on the roadside to support access to available parking and load zones on both public and private facilities.
- Improved transit signal priority (TSP) that is less reliant on roadside hardware and directly integrated between the city's traffic signal system and Metro's vehicle locating system. This integration will reduce the cost of expansion and improve the reliability of the system.
- Integrate local signal system data with probe-based speed data to evaluate signal system performance to improve travel flow. Also consider operational improvements at traffic signals that support pedestrian safety. This includes expanding the use of "leading pedestrian interval" and using video analytics to extend crossing timings based on real-time crosswalk activity.
- Use video analytics technology to study safety improvements along our High Injury Network.
- Support the advancement of new mobility solutions, such as autonomous and connected technology, that can advance travel options to reduce single occupancy vehicle trips and improve safety and sustainability. Bellevue's 2023 *Autonomous Vehicle Strategic Vision* outlines the next steps in advancing support of this technology.
- Work with regional partners to advance the virtually coordinated management of events and incidents that affect the transportation network regionally.
- Expand roadside equipment health monitoring to improve response to failures and tracking of equipment performance.

Bellevue's Smart Mobility program is well aligned with the MIP framework as it focuses on ways to improve the traveler experience in built-out areas that are physically constrained, where capacity improvements may not be feasible. Bellevue, together with regional partners such as King County Metro, Sound Transit, PSRC, and WSDOT, could coordinate implementation of Smart Mobility strategies to improve the performance of transit, highways, or other regional facilities that may be impacted by the Action Alternatives.

11.6.4 Agency Partnerships

WSDOT, King County Metro, Sound Transit, and PSRC all provide important transportation resources and facilities for the City of Bellevue. Bellevue has a long history of working with these partner agencies to expand multimodal access to and within the city. These partnerships are critical for the continued evolution of the regional multimodal network in Bellevue. For example, mitigating impacts on transit travel time ratios would require close coordination with Bellevue's transit agency partners. Bellevue could do more work with King County Metro and Sound Transit to identify new locations where buses experience delay on city streets and implement additional transit speed and reliability improvements, such as dedicated bus lanes, transit queue jumps, transit signal priority, or bus bulbs.

Bellevue will continue its partnership with WSDOT to monitor conditions on state facilities that connect to and traverse the city. WSDOT Design Manual Chapter 1130.09(2)(a) includes impact thresholds that apply at the individual project level. As the city continues to administer development approvals, staff can work with WSDOT to consider how to best integrate the state highway impact threshold into its development review process.

11.6.5 Parking Strategies

Parking is a complex subject. On one hand, cities work with developers to contain parking demand so that it does not spill out into the surrounding area and impede access to other land uses. On the other hand, extensive research shows that easy, free, and convenient parking makes driving to a destination the first choice by making access by all other modes more difficult and uncomfortable. Providing easy, free, and convenient parking therefore results in more vehicle trips, traffic congestion, and VMT. Therefore, Bellevue strives to:

- Manage the demand and use of public and on-street parking areas (curbspace).
- Ensure an adequate supply of private parking and vehicle access for those who need to drive and park.
- Ensure that supply of private parking does not incentivize driving to the point that it degrades the performance of the overall multimodal system.

CURBSPACE MANAGEMENT

Bellevue is developing a Curb Management Plan to balance the demand for curb uses against available space. The plan will provide a long-range vision for designating, maintaining, and operating curbspace in areas of high demand. The Curb Management Plan is flexible and will evolve over time to help mitigate on-street parking impacts. Specific actions incorporated in the Curb Management Plan include monitoring on-street parking utilization, loading zone utilization and potential changes to allowed curb users, time limits, and paid parking to balance supply and demand. These curb management strategies are particularly relevant in Type 1 and Type 2 PMAs.

The city manages on-street parking on local streets in residential neighborhoods through two types of restrictions: general parking restrictions, which apply to all vehicles; and residential parking zones, which require a permit to park a vehicle. Both types of restrictions are used to regulate parking in neighborhoods that experience spillover parking from destinations such as businesses or schools and require City Council approval as well as majority support from the neighborhood. Such programs could be expanded to include other neighborhoods if parking impacts materialize.

OFF-STREET PARKING

Off-street parking supply will continue to increase in accordance with Bellevue City Code requirements. The Bellevue Land Use Code[4] requires a minimum number of parking spaces per net square foot, depending on the use of the property. Some uses also have a maximum parking limit, although for many uses no maximum is specified. A developer may also be required to provide off-street loading space to serve the site.

Residential uses that are proximate to light rail and other frequent transit network service have lower minimum parking requirements. Downtown Land Use Districts also have lower minimum parking requirements and are more restricted by parking maximums than other areas of Bellevue, in recognition of the high level of transit service and availability of other modes of transportation that reduce the need to travel by vehicle.[5]

[4] https://bellevue.municipal.codes/LUC/20.20.590.
[5] https://bellevue.municipal.codes/LUC/20.25A.080.

To manage the transportation system impacts related to supply of parking and associated vehicle congestion, Bellevue could consider lowering or eliminating minimum parking requirements and reducing the maximum parking requirements, in conjunction with encouraging transit use, walking, and biking. While parking impacts may arise in the short term (parking spilling over into adjacent neighborhoods), the city's curbspace management policies are equipped to limit significant impacts in the long run. The degree to which these strategies can mitigate traffic congestion impacts depends on the types of strategies and how aggressively they are implemented as well as the context of the impacted area, for example, location, other available mobility options, and magnitude of the impact.

11.6.6 Safety Strategies

The City of Bellevue is guided by a commitment to Vision Zero, aligned with the statewide Target Zero plan, which aims to eliminate traffic deaths and serious injury collisions on city streets by 2030. Vision Zero is founded on the Safe Systems approach, which considers the design, infrastructure, and systemic issues behind crashes. Bellevue's Vision Zero Strategic Plan coordinates existing efforts and new ideas, evaluates crash data, considers public concerns, and identifies strategies to reduce traffic fatalities and serious injuries. The program was approved for funding in Bellevue's 2021–2027 and 2023–2029 capital budgets. The city's Annual Action Plans serve as living documents, updated as new data become available. Progress toward Vision Zero goals is tracked through a collision dashboard and biennial progress reports.

Bellevue has implemented a wide range of traffic safety programs in support of its Vision Zero program that could be leveraged to address safety impacts as they arise. Ongoing safety programs include:

- Neighborhood Traffic Safety Services (NTSS) works with residents to improve traffic safety and reduce parking impacts.
- Traffic safety request forms can be filled out online to contact Bellevue with traffic safety concerns or requests.
- The collision reduction program includes annual reviews of crashes on city roadways and identifies potential safety countermeasures available to improve safety.
- Crosswalk and sidewalk programs allow Bellevue residents to request new or improved pedestrian infrastructure.

- School Safety Program includes school zone speed limit signs and School Pool and Walk & Roll to encourage walking and bicycling to school, as well as the Pedbee educational program to teach safe travel tips to children.
- Rapid build data driven safety program funding implements safety countermeasures along High Injury Network (HIN) corridors.
- Road Safety Assessments (RSA), especially around schools, identify safety issues, particularly for pedestrians and bicyclists.
- Leading Pedestrian Intervals give pedestrians a WALK signal to cross a street before the green light for vehicular traffic.
- Slow Zone Pilot tested lower speed limits in a pilot program neighborhood.
- Micromobility regulations expand access to mobility while addressing safety as new modes, such as e-scooters, emerge.
- Vision Zero collision dashboard shows where and what type of collisions have occurred, providing data to understand the problem and develop a solution.
- Video analytics partnerships with private and non-profit organizations identify near-crash conflicts between vehicles, pedestrians, and bicyclists so that Bellevue can proactively identify safety improvements.

These safety programs demonstrate Bellevue's commitment to proactively identify and then take action to resolve potential safety issues as they arise.

11.6.7 Transportation Mitigation Measures

This section outlines specific, programmatic transportation mitigation measures to address the impacts identified in the previous chapters. The mitigation measures have their foundations in the plans, programs, and strategies described previously in this chapter. Mitigation measures are informed by the context of PMAs, which are geographic areas of Bellevue defined in the MIP that have distinct land use patterns, mixes and intensities of development, and transportation options. The PMAs are summarized below:

- **PMA 1: Downtown, Wilburton-East Main, BelRed.** High-density, mixed use areas with planned light rail and other frequent transit network service where walking, biking, and transit are key modes of access.

- **PMA 2: Crossroads, Eastgate, Factoria.** Medium-density, mixed use areas that are served by frequent transit network routes. Walking, biking, and transit are strong mobility options for most parts of Type 2 PMAs.
- **PMA 3: Lower density, predominantly residential areas of Bellevue.** The Type 3 PMA is characterized by single-family and multi-family residential areas with small-scale commercial nodes along arterials. Transit service is available, but there is generally sparse coverage by frequent transit network service. Due to separation of land uses, many walking trips are recreational in nature rather than to access daily needs. There are local bicycle connections to the regional bicycle facilities, commercial areas, and neighboring Type 1 or 2 PMAs.

To successfully accommodate the planned growth included in each of the alternatives and mitigate transportation impacts, Bellevue, in partnership with developers and other agencies, will need to implement a broad spectrum of the improvements and strategies described in this section. Taken together, these mitigation measures will expand the transportation network for walking, biking, and transit; manage traffic congestion; strategically add vehicle capacity; reduce the need to drive to destinations; and improve safety.

Mitigation Measure M-TR-1:
Performance target gaps to transit travel time ratios, System Intersection V/C ratios, Primary Vehicle Corridor speed, safety, and parking in Type 1 PMAs

The analysis indicated performance target gaps for transit travel time ratios, System Intersection V/C ratios, and Primary Vehicle Corridor speed as well as potential less-than-significant impacts on safety, and parking in Type 1 PMAs, including the Wilburton study area. The degree of the potential gap progressively increases for Alternatives 1, 2, and 3. Key mitigation measures Bellevue should consider in Type 1 PMAs include:

- To address transit travel time performance target gaps, Bellevue should continue to partner with King County Metro and Sound Transit. Improvements could include transit-only/HOV lanes on city streets, transit signal priority, and strong coordination to plan for the Link light rail 4 Line between South Kirkland and Issaquah, that will serve BelRed, Wilburton, Downtown, East Main, Factoria, and Eastgate.
- To address performance target gaps for System Intersection V/C ratios and Primary Vehicle Corridor speed, Bellevue should focus primarily on building out the pedestrian and bicycle network to ensure there are multiple mobility options for people to get to their destinations, "exceptional TDM" requirements beyond what is required by Bellevue City Code to further reduce SOV driving demand, Smart Mobility solutions on arterials and state highways, and parking code reforms to eliminate parking minimums near Link light rail stations, and potentially add further maximum parking limits to shift driving from the default mode of travel to a mode of necessity. Roadway or intersection capacity expansion should be a mitigation measure of "last resort" in PMA 1 given the secondary impacts on pedestrian and bicyclist comfort and safety and the very limited available space to expand the roadway network.
- To address safety impacts, Bellevue should continue to implement countermeasures and strategies consistent with its Vision Zero Action Plan and Safe Systems approach, with a particular focus on reducing risks to vulnerable pedestrians and bicyclists. Priority should be placed on improving the safety of people walking or bicycling along the road through closing sidewalk gaps, installing mid-block crossings, providing low-stress bicycle facilities, and reducing crossing distances and creating high-visibility crosswalks at intersections.
- As PMA 1 redevelops with a greater intensity and mix of land uses, on-street parking demand may exceed supply during peak periods, which can be mitigated through Bellevue's existing curbspace programs and with additional interventions identified in the Curb Management Plan.
- Review development projects in conjunction with the MIP and use the MIP to inform the development and administration of the city's codes, standards, regulations, the Multimodal Concurrency Code (Chapter 14.10 BCC), Transportation Design Manual requirements, the TFP, and Transportation Impact Fee Program (Chapter 22.16 BCC). Ensure that codes, standards, and regulations, as well as Transportation Plans and Programs adopted by the city, are administered and adopted to address transportation system impacts and to accommodate actual and anticipated growth throughout the city, including in PMA 1.

Mitigation Measure M-TR-2:
Performance target gaps to transit travel time ratios, System Intersection V/C ratios, Primary Vehicle Corridor speed, safety, and parking in Type 2 PMAs

The analysis indicated performance target gaps for transit travel time ratios, System Intersection V/C ratios, and Primary Vehicle Corridor speed, as well as potential less-than-significant impacts on safety, and parking in PMA 2. The degree of the potential impact increases for Alternatives 1, 2, and 3. Key mitigation measures Bellevue should consider in Type 2 PMAs include:

- To address transit travel time performance target gaps, Bellevue should continue to partner with King County Metro and Sound Transit. Improvements could include transit only/HOV lanes on city streets, transit signal priority, and strong coordination to plan for the Link light rail 4 Line between South Kirkland and Issaquah, that will serve BelRed, Wilburton, Downtown, East Main, Factoria, and Eastgate. Innovative projects like the Bellevue College Connector in Eastgate is a good example of this multi-agency collaboration.
- To address performance target gaps for System Intersection V/C ratios and Primary Vehicle Corridor speed, Bellevue should focus primarily on building out the pedestrian and bicycle network to ensure there are multiple mobility options for people to get to their destinations, and "exceptional TDM" requirements beyond what is required by Bellevue City Code to further reduce SOV driving demand. Smart Mobility solutions for city arterials are of key importance in Type 2 PMAs given busy arterials like Factoria Boulevard and 148th/150th Avenue. Further refinements in traffic signal timing could address Primary Vehicle Corridor performance target gaps even if there are still intersection V/C performance target gaps. Given the close proximity of the Factoria and Eastgate areas to major WSDOT facilities, Smart Mobility solutions on state routes are also important. Vehicle capacity expansions may be warranted in limited and strategic areas if the other project concepts or strategies do not adequately address vehicle performance target gaps. However, any capacity expansion should be weighed against safety and multimodal access impacts.
- To address safety impacts, Bellevue should continue to implement countermeasures and strategies consistent with its Vision Zero Action Plan and Safe Systems approach with a particular focus on reducing risks to vulnerable pedestrians and bicyclists. Managing vehicle speeds on arterials will be a key element of improving safety overall.
- Type 2 PMAs, with less intensity and mix of land uses than in Type 1 PMAs, may experience parking impacts around the fringes and along smaller streets within the PMA. As noted earlier, Bellevue has robust parking and curbspace management programs that can mitigate parking spillover impacts.
- Review development projects in conjunction with the MIP and use the MIP to inform the development and administration of the city's codes, standards, regulations, the Multimodal Concurrency Code (Chapter 14.10 BCC), Transportation Design Manual requirements, the TFP, and Transportation Impact Fee Program (Chapter 22.16 BCC). Ensure that codes, standards, and regulations, as well as Transportation Plans and Programs adopted by the city, are administered and adopted to address transportation system impacts and to accommodate actual and anticipated growth throughout the city, including in PMA 2.

Mitigation Measure M-TR-3:
Performance target gaps to transit travel time ratios, System Intersection V/C ratios, Primary Vehicle Corridor speed, safety, and parking in Type 3 PMA

The analysis indicated performance target gaps for transit travel time ratios, System Intersection V/C ratios, Primary Vehicle Corridor speed, as well as potential less-than-significant impacts on safety, and parking in the Type 3 PMA. The degree of the potential impact increases for Alternatives 1, 2, and 3. Key mitigation measures Bellevue should consider in the Type 3 PMA include:

- Transit travel time performance target gaps affect frequent transit network routes that traverse the Type 3 PMA, but there are no major transit nodes in the PMA. However, Bellevue should continue to work with partner transit agencies to implement strategic transit speed and reliability improvements within the Type 3 PMA to benefit service within the area and to enhance the performance of the overall transit system. Transit riders from the Type 3 PMA can benefit from these improvements both on routes that they are able to access by walking or bicycling, and also from major park-and-ride and transit centers across the city.
- To address performance target gaps for System Intersection V/C ratios and Primary Vehicle Corridor speed, Bellevue should continue to build out the pedestrian and bicycle network per the MIP within the Type 3 PMA as this large area of the city contains performance target gaps. Smart Mobility solutions for city arterials are of major importance for arterials like 148th Avenue and Coal Creek Parkway, for example. Further refinements in traffic signal timing could address primary vehicle corridor performance target gaps even if there are still intersection V/C performance target gaps. Vehicle capacity expansions may be warranted in strategic areas if the other project concepts and strategies do not adequately address vehicle performance target gaps.
- To address safety impacts, Bellevue should continue to implement countermeasures and strategies consistent with its Vision Zero Action Plan and Safe Systems approach with a particular focus on reducing risks to vulnerable pedestrians and bicyclists. Managing vehicle speed on arterials will be a key element of improving safety overall.
- As the city redevelops with a greater intensity and mix of land uses, particularly in Type 1 and Type 2 PMAs, there could be parking impacts on city streets within the Type 3 PMA. The city has robust parking and curbspace programs in place that can mitigate parking impacts.
- Review development projects in conjunction with the MIP and use the MIP to inform the development and administration of the city's codes, standards, regulations, the Multimodal Concurrency Code (Chapter 14.10 BCC), Transportation Design Manual requirements, the TFP, and Transportation Impact Fee Program (Chapter 22.16 BCC). Ensure that codes, standards, and regulations, as well as Transportation Plans and Programs adopted by the city, are administered and adopted to address transportation system impacts and to accommodate actual and anticipated growth throughout the city, including in PMA 3.

Mitigation Measure M-TR-4: Impacts on state facility LOS

The analysis indicated state facility LOS impacts from each of the alternatives. The degree of the potential impact increases for Alternatives 1, 2, and 3. Key mitigation measures Bellevue should consider include:

- To address impacts on state facility LOS, Bellevue should continue to coordinate and partner with WSDOT on state transportation investments to improve regional mobility. Specific examples could be continued collaboration on implementing elements of the I-405 Master Plan, including the South Downtown I-405 Access Study. Bellevue and WSDOT have a long history of implementing improvements to state routes through the city. Bellevue can also facilitate the implementation of Smart Mobility strategies on state facilities through sharing of travel data and using Bellevue's communications channels to communication information to travelers. Smart Mobility on state facilities is an important strategy to moving more people and addressing regional travel needs.
- "Exceptional TDM" requirements beyond what is required by Bellevue City Code to further reduce SOV driving demand, which will reduce overall traffic demand on state facilities. Similarly, considering parking code reforms to eliminate parking minimums near Link light rail stations and potentially add further maximum parking limits to shift driving from the default mode of travel to a mode of necessity would benefit state facilities.

11.7 Significant and Unavoidable Adverse Impacts on Transportation

This section identifies whether any significant and unavoidable adverse impacts on transportation would occur under the Action Alternatives. All Action Alternatives are expected to have significant impacts on System Intersection V/C, Primary Vehicle Corridor travel speed, and state facilities (with other potential impacts expected to be at a less than significant level).

With implementation of the mitigation measure approach outlined by PMA in the previous section, it is expected that Bellevue could manage some of those impacts over the course of the decades it would take to reach full build-out. As development occurs, Bellevue will determine the capital and programmatic improvements best suited to address the conditions that materialize. Capital projects will be identified in the Transportation Facilities Plan, a fiscally constrained plan prioritizing project needs over the subsequent 12-year period; the Transportation Facilities Plan is updated every two to three years. In addition, the city will continue to use the MIP when developing and administering the city's policies, codes, standards, regulations, and plans.

While incremental improvements in performance to some impacted facilities could be achieved, it is expected that some of the significant impacts on System Intersection V/C, Primary Vehicle Corridor travel speed, and state facilities would remain.